ABSTRACT OF

Lectures

ON

EVOLUTION IN PATHOLOGY.

Delivered at the Royal College of Surgeons.

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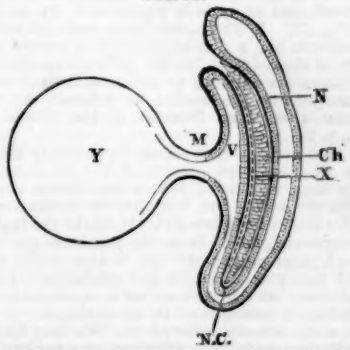
LECTURE II.

MR. PRESIDENT AND GENTLEMEN,—In the last lecture the subject of "retarded coalescence" was considered in some detail; in the present lecture we must deal with the third form, and then proceed to apply the principles involved to the explanation of many malformations connected with the alimentary canal.

3. *Excessive coalescence.*—In many parts of the body during early embryonic life coalescence takes place normally between two structures originally distinct. Should the union overstep the ordinary limit, then it is excessive. Thus, in the formation of the mouth, from the partial closure of the mandibular fissure, the edges of the cleft may unite beyond the normal limit and produce the deformity termed *microstoma*. Excessive coalescence may occur in another way. A tube or duct, functional only in the embryo, becomes occluded as development proceeds. In rare instances the occluding process may involve a neighbouring tube. This may be illustrated by the curious malformation known as coarctation of the aortic arch. It is well-known that occasionally the arch of the aorta has been found impervious at the spot where the arch joins the thoracic aorta—that is, in the immediate neighbourhood of the ductus arteriosus. In a few cases the aorta has been found completely divided at this spot, in others a septum has been present, and in a third class of cases the vessel becomes contracted, but a channel sufficient to admit a thin probe has persisted. Such conditions are not incompatible with life, owing to the establishment of anastomotic circulation. To account for this coarctation two opinions have found adherents. Thus it has been supposed that when the ductus arteriosus became obliterated, the occluding process extended to the aorta and produced the obstruction. The other much more probable explanation is, that in the adult the aorta between the origin of the left subclavian and the ductus is often contracted, the coats being thin at this point. This is more marked in children even than adults; in some cases this contraction is so decided that the ductus arteriosus is prevented from closing. Regarding the nature of this contraction we are absolutely in the dark.[1] Which of these opinions is the correct one, for the present purpose it matters little, either serving as a type of excessive coalescence. This process will be illustrated by many serious defects we shall find occasion to study.

Having endeavoured to assign a particular significance to the terms *abnormal*, *retarded*, and *excessive* coalescence, let us endeavour to make a practical application of the law. The ontogeny of the alimentary tract is replete with illustrations of the value of coalescence; at the same time it furnishes evidence of the serious inconvenience attendant on retarded fusion—some of the defects arising from this cause are incompatible with life; it will also furnish examples of the effects of excessive coalescence. Notwithstanding the extraordinary diversity of form, length, and arrangement of the alimentary canal in the various classes of mammals, it arises in all upon a common plan. The facts of modern embryology enable us to represent the parts as a U-shaped tube lined with a continuous epithelium. Each limb ends at the cephalic extremity as a cul-de-sac. The ventral limb is connected with the yelk sac. (Fig. 17.) The dorsal section of this tube ultimately becomes the cerebro-spinal axis; the ventral portion is represented in the adult by the alimentary tract, from the commencement of the œsophagus to the anus, including the coccygeal body. The ventral limb is lined with epithelium derived from the hypoblast, whilst that of the dorsal segment belongs to the epiblast. The ventral limb may be subdivided into a fore-gut and hind-gut. The anterior end of the fore-gut becomes connected with the exterior by an epiblastic involution—the *stomodæum*,—which not only opens up the gut, but has intimate relations with the cephalic end of the dorsal tube by means of the pouch of Rathké. From the stomodæum is derived the buccal and oral chambers, the tongue, and pharynx. From the fore gut we get the œsophagus, lungs,

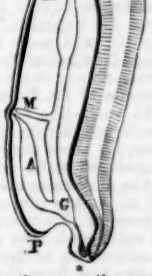
FIG. 17.



The primitive alimentary canal of a vertebrate. Ch, Notochord; X, the subnotochordal rod; N, the neural axis; N C, neurenteric passage; V, intestines; M, vitelline duct.

stomach, and duodenum as far as the entrance of the bile-duct. The hind-gut furnishes the remainder of the small intestines, the large gut, the rectum, a portion of the cloaca, the allantois, and post-anal section of the gut. The dilatation of the hind gut, which ultimately becomes part of the cloaca, is opened to the exterior by means of an epiblastic involution—the *proctodæum*,—which represents the anus and external genital passage. After the coalescence of the

FIG. 18.



S, The stomodæum; X, the pouch of Rathké; L, lungs; M, the vitello-intestinal duct; A, allantois; C, the cloacal dilatation; P, proctodæum; *, the coccygeal body.

FIG. 19.

Imperforate pharynx and obliteration of the œsophagus. (The parts are represented from behind.)

proctodæum and gut, the post-anal section shrinks and is finally represented by the coccygeal body and its pedicle; the neurenteric passage, by means of which the dorsal and ventral sections communicated, now disappears. The fate of the original U-shaped tube is represented diagrammatically in Fig. 18.

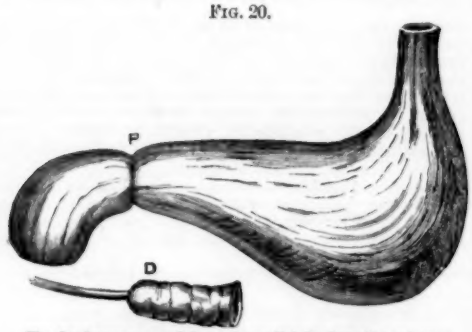
This brief epitome of the ontogeny of the alimentary canal is sufficient to indicate the importance of coalescence.

[1] See Peacock, Brit. and For. Med.-Chir. Review, 1860.

Let us now consider some of the defects which arise when it is at fault. In the first place, it is easy to perceive that when the stomodæum fails to coalesce with the fore-gut imperforate pharynx in some form or other will be the result. Of imperforate pharynx there are three distinct varieties:—1. The pharynx ends as a cul-de-sac near the cricoid cartilage, and is separated by a variable distance from the œsophagus, the two being usually connected by an impervious cord. In these cases the œsophagus usually communicates with the trachea by means of an oval opening. 2. The stomodæum and œsophagus are joined, but the œsophagus fails to grow *pari passu* with the rest of the bowel, and at birth is represented by an impervious cord (Fig. 19). 3. The stomodæum and gut meet as usual and coalesce, but a diaphragm with a central perforation persists at the point of fusion. (For an excellent summary of the literature relating to malformations of the pharynx and œsophagus the reader is referred to Sir Morell Mackenzie's work on Diseases of the Throat and Nose, vol. ii., p. 217.)

The next eventful spot occurs immediately above the bile papilla in the second portion of the duodenum. It has already been mentioned that a line drawn across the gut immediately above the bile papilla corresponds to the posterior limit of the fore gut. It marks the region whence the diverticula proceed from the primitive gut to form the liver and pancreas respectively; it also marks the anterior limit of that portion of the gut originally in relation with the yelk sac. At this spot excessive coalescence may occur, and produce a condition of things analogous to coarctation of the aorta already referred to. We may find an imperforate diaphragm in this situation, or a perforated septum. Rarely the duodenum may end as a cul-de-sac (Fig. 20).

FIG. 20.



The duodenum as a cul-de-sac immediately above the entrance of the bile papilla. P, Pylorus. D, Duodenum.

Specimens of complete occlusion of the duodenum are extremely rare. The malformation is figured in Förster's admirable work, "Missbildungen des Menschen." The case from which the drawing (Fig. 20) was made I described some time ago in the Medical and Chirurgical Transactions[2] (vol. lxvii.), and I have since been able to study a specimen of the same nature in the possession of Dr. Thomas Barlow. It has been suggested that the valve-like septa found at this part of the intestines are enlarged valvulæ conniventes; this view, however, is untenable, for these curious folds of mucous membrane are not developed until the last two weeks of intra-uterine life, and in most cases not until after birth. In the paper alluded to I have given references to several carefully described cases of this nature. It is of course needless to state that such conditions are incompatible with life. It is not uncommon to find at a spot varying from twelve inches to two feet from the ileo-cæcal valve a diverticulum from the gut, of variable size, known as Meckel's diverticulum. This represents a persistent vitello-intestinal duct, which should normally become obsolete. It may vary in length from half an inch to six inches, and may or may not be fixed to the umbilicus. In rare cases it may open at this spot, and the child defecate at the umbilicus. Not unfrequently we may study the reverse of this process; the obliteration of the duct may exceed the normal, and involve the bowel to such an extent that it becomes obstructed. In rarer cases the coalescence may extend to the bowel below, and a foot or more become impervious. Such malformations are not uncommon. I have dissected two such in the course of my investigations into fœtal pathological anatomy. Two carefully described cases are easily accessible—one by Mr. Davies-Colley,[3] and another by Dr. Hobson.[4]

We may next study an example of excessive coalescence in the cæcum. The vermiform appendix is in its early stage as large as the cæcum, but, failing to grow at the same rate as the gut immediately in relation with it, becomes in the adult vestigial. In some rare cases the appendix not only fails to grow at the same rate as the colon, but may become reduced to a thin impervious band of fibrous tissue. This degenerative or occluding process may not be restricted to the appendix, but extends to and involves the cæcum, giving it a very peculiar blunted appearance.

The rectum and anus furnish us with many examples of arrested and imperfect coalescence. Thus the proctodæum may fail to unite with the rectum, or they merely come into contact. In such a case the condition is known as imperforate rectum. The degree of malformation may vary greatly: in some cases merely a thin partition intervenes between the two segments; in others several inches of bowel may be impervious. Some of the latter cases may be explained in the same way as coarctation of the gut induced by excessive coalescence in connexion with the vitello-intestinal duct. Thus it will be seen on reference to Figs. 17 and 18 that a considerable section of the original gut posterior to the anus suffers obsolescence. Should this process exceed its normal limit, the gut will then become impervious for a greater or shorter distance anterior to the anus. In the early embryo, at a period when the proctodæum and gut have fused together, we have a common opening for the gut, the urinary and genital ducts. This common chamber or cloaca consists, then, of two distinct parts, one belonging to the original bowel and lined with hypoblast, the other derived from the proctodæum and covered with epiblast cells. It may be subdivided in the opposite direction into a ventral or urino-genital chamber, and a dorsal portion proper to the gut. Later these parts become actually separated by the formation of the perineal body. In some cases the anal or vaginal orifice may become secondarily obliterated—that is, they may have been normally formed from the proctodæum, but, coincident with the ingrowth of the perineal body, one or other may become occluded secondarily. Indeed, most workers engaged with the pathology of the fœtus are agreed, that it is extremely difficult to decide in a given specimen whether an occlusion is due to a primary or secondary cause.

So far as the rectum and anus are concerned, imperfections may arise from three distinct causes: 1. Failure of the proctodæum to unite with the gut. Of this there are several degrees. 2. The two segments—bowel and proctodæum—may unite normally, but the anus becomes secondarily occluded. 3. The process of occlusion in connexion with the post-anal gut may be excessive, and, extending beyond the anus, may involve the rectum to a greater or less extent. In this last class of cases the rectum may end as a cul-de-sac as high as the point known as the sigmoid flexure, or even beyond this spot. When two cul-de-sacs fuse to form a continuous tube, the coalescence takes place in a definite manner. We find the two closed ends come into contact, and exert pressure upon each other. The opposed portions unite, but at first the lumen is obstructed by a thin septum; gradually the central portion of the septum atrophies, leaving a perforated diaphragm; this in its turn disappears, and leaves the lumen of the tube uniform.

We may utilise this knowledge in order to explain the nature of the hymen. The vagina near its orifice consists developmentally of two parts: an upper portion derived from the urino-genital section of the cloaca, and an outer piece from the proctodæum. The point of union between these two corresponds to the situation of the hymen. Should the union be imperfect and the passage obstructed by a complete septum, imperforate hymen is the term applied; should it be perforated in several spots, it is said to be cribriform. Normally, however, there is only a central perforation; occasionally this septum is absent at birth. Hence in the hymen we may study every variety of imperfect coalescence. On the evidence which has been placed before you, it may be fairly inferred that the hymen represents a persistent portion of the proctodæum which remains after its union with the urino-genital section of the cloaca. It

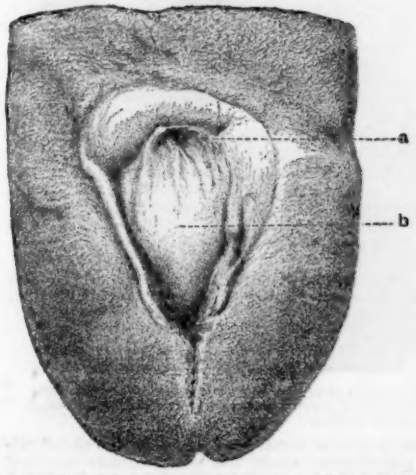
[2] On the Systematic Examination of Still-born Children.

[3] Path. Soc. Trans., vol. xxix., p. 115. [4] Ibid., vol. xxxvi., p. 217.

seems to me that the embryological testimony offers a much more satisfactory explanation of the nature of the hymen than that put forward by Budin: this author would simply regard it as a fold of the vaginal mucous membrane. Indeed, it offers an explanation of those rare cases described by Dr. Matthews Duncan, in which the hymen is present when the vagina is absent. For a more detailed account of this matter the reader is referred to my paper in the *Gynæcological Journal*, Part 12, 1888.

Spina bifida.—Next to the alimentary tract, there is no part of the body which so forcibly illustrates the application of the law of coalescence in pathological anatomy as spina bifida; further, the intimate relation of the intestinal canal and the cord phylogenetically forbids their separation in a review of this nature. Ontogenetically, the spinal cord is formed by the coalescence of the medullary folds across the dorsal median line. The fusion occurs first in the thoracic region and extends into the caudal and cephalic portions. For a short time after the coalescence of the medullary folds the embryonic cord and the superficial epiblast remain for a time in contact. Gradually they become separated by the intrusion of mesoblastic tissue, part of which chondrifies, and finally ossifies to form the vertebræ, the softer portions becoming transformed into meninges, muscles, &c. In its early stages the spinal cord has a longitudinal extent equal to that of the notochord, and this structure in the embryo is relatively longer than the vertebræ, which eventually replace it. For some time after the closure of the medullary groove the cord still maintains its original relation to the notochord, but as the embryo increases in length the vertebral column grows at a greater rate than the nervous tube which it surrounds. The result of this is that at the time of birth the conus medullaris is opposite the second

FIG. 21.



Posterior view of the lower part of the trunk of a fœtus affected with spina bifida—var. myelocele.

lumbar vertebra, unless from some pathological cause it is retained lower than usual. Indeed, cases are on record in which the conus medullaris was opposite the third piece of the sacrum. It is important to bear these things in mind when dealing with the subject of spina bifida. These facts enable us to arrange the varieties of spina bifida in groups as follows:—1. Failure of union of the medullary plates; the defect may involve the whole axis. 2. The medullary folds form a complete tube, which may adhere to the surface epiblast, and becomes subsequently dilated. 3. The complete cord thus adherent to the surface epiblast may be compressed by fluid collected in the meninges. 4. The cord may be normal, but a local dilatation and bulging of the meninges occurs. 5. The cord may be retained at an abnormal situation in the canal, or may be in part bifid. 6. The arches of the vertebræ may be defective throughout the whole length of the column, or the defect may be limited to two, three, or even one vertebra, with a cyst protruding externally. 7. A defect in the arches of one or more vertebræ may exist, but no cyst appears and the skin covering is normal.

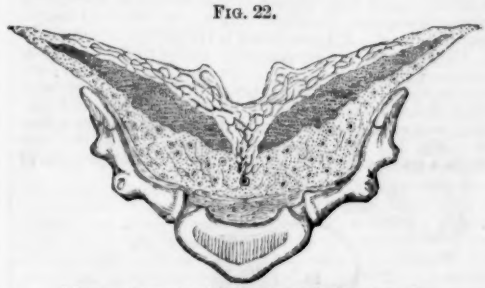
The Spina Bifida Committee of the Clinical Society performed its work extremely well, and founded an excellent nomenclature, but an inquiry into the matter shows that it is not sufficiently extensive, owing to the fact that the work of the committee was limited to the material at its disposal. The amended classification is as follows: (1) myelocele, (2) syringo-myelocele, (3) meningo-myelocele, (4) meningocele, (5) syringo-meningocele, and (6) spina bifida occulta. The last term must be used for the present as a convenient clinical label, until we are in possession of more material to enable us to arrive at some definite conclusions regarding the pathological anatomy of the condition.

We must now proceed to consider each group in detail, and then frame definitions for each of the above terms.

1. *The medullary plates fail to unite dorsally.*—Examples of this are not only very rare but they are incompatible with life. The clearest account of this variety is furnished by Lebedeff;[5] the specimens observed occurred in chicks.

The medullary plates coalesce imperfectly.—This condition is well illustrated by the specimen represented in Fig. 21. In this case the cord is normally formed above the defective spot, but in the lower lumbar region the central canal suddenly opens on to a shallow depression, the sides of which are slightly intumescent, and then gradually become continuous with the skin. The tissue surrounding the furrow represents the medullary folds, and consists mainly of nervous matter and vessels arranged in a manner suggestive of teleangiectasis; when fresh it has the appearance of a capillary nævus, or the bright-red colour of the tissue which represents the brain in the malformation known as anencephalia. The specimen from which the drawing is taken is preserved

FIG. 22.



A diagram to represent the microscopic characters of a transverse section of a myelocele.

in the museum of the Middlesex Hospital. It has been dissected, described, and figured by the Spina Bifida Committee of the Clinical Society. In the Report this committee "assumed that the neural furrow has never closed in, and that the median portion of the sac below this is represented by the attenuated tissue of the spinal cord, furnished only, perhaps, with an epithelial investment." Since this Report was published three similar specimens have come into my possession for dissection. One of them I saw during life. All three were submitted to microscopical examination, and the result thoroughly justifies the assumption of the committee already mentioned. I am of opinion that this form of spina bifida is not so rare as many hold, but as the patients do not present a tumour in the loin, the specimen is cast aside as atypical. Seeing that the central canal of the cord is open to the exterior, and there is a continual draining away of cerebro-spinal fluid, these children very rarely survive their birth more than a few days. For this variety of spina bifida I venture to propose the name of *myelocele*. Its characters would be as follows: The neural arches are unclosed, and the defective portion of the spine is occupied by a reddish or bluish-red tissue resembling a nævus. In the centre of the mass a furrow may be usually detected, which leads upwards to the central canal of the cord; from this cerebro-spinal fluid continually leaks. Microscopically examined, we find on each side of this median furrow a mass of tissue composed chiefly of nerve cells, neuroglia, and a few nerve tubules, intermixed with plexuses of arterioles, venules, and capillaries. A diagram of the microscopic appearances is represented in Fig. 22. In one case

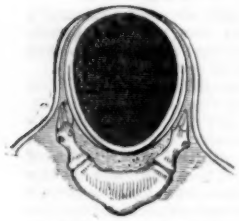
[5] Virchow's Archiv, Bd. lxxxvi., S. 293.

the central groove was absent; when examined microscopically, it was found to be occupied by a collection of arterioles. It is exceedingly difficult to determine the existence of epithelium on the surface of myeloceles, because there is usually some inflammation and sloughing of the parts.

2. *The cord adheres to the surface epiblast, and the central canal becomes dilated.*—This very rare form is known as *syringo-myelocele*; it is represented diagrammatically in transvere section in Fig. 23. It will be seen in the drawing that one characteristic difference between this and meningo-myelocele is that the nerves, instead of traversing the cyst,

FIG. 23.

A



A syringo-myelocele in transverse section. (Diagrammatic.)

FIG. 24.

B

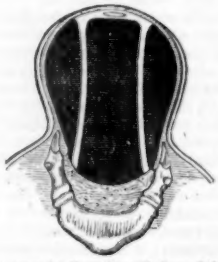
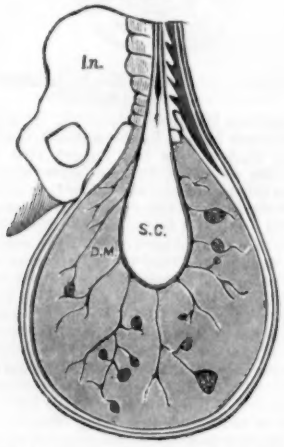


Diagram to show the relation of the cord in a meningo-myelocele.

run round its convexity. It should be remembered that the central canal may become dilated in one or more parts, or even throughout its whole length, the vertebral arches remaining intact. This condition is termed syringo-myelus.

3. *The cord remains permanently united to the superficial epiblast.*—This variety is, as a rule, readily recognised; the defective spot of the spine is occupied by a cystic tumour, usually of some size. Lying in the middle of the most projecting part of the cyst wall is the flattened strap-like spinal cord. (Fig. 24.) Not infrequently the centre of the cyst presents a small umbilicus leading into the central canal of

FIG. 25.



A congenital sacral cystic tumour due to dilatation of the terminal portion of the spinal meninges. (After Braune.) S C, Spinal canal; D M, dura mater.

the cord. On section, the part representing the cord is seen to be occupied by a central canal lined by epithelium. This is of importance, as it demonstrates that the cord was normally formed, but became subsequently flattened. The spinal nerves arising from the cord on the back of the sac traverse the cyst to gain their appropriate foramina. This form of defect is known as a meningo-myelocele; it constitutes by far the largest proportion of cases of spina bifida. The strongest support to the argument that in meningo-myelocele the cord has never been completely differentiated from the surface epiblast is the absence of meningeal spaces behind the cord, as determined by the microscope. Further, in the majority of cases it is impossible to determine, except by careful dissection—and in many cases the aid of a microscope is necessary,—whether a given spina bifida is a syringo-myelocele, a meningo-myelocele, or a meningocele.

4. *The cord is normal, but the membranes may form a cystic mass and project through defective arches, or even through the normal hiatus sacralis*, as in Fig. 25.—This variety is uncommon, but it certainly occurs, and is of interest on account of its tendency to become pedunculated, and the connexion of the cyst with the spinal canal may be cut off. In very rare cases the cyst may even occupy a lateral position, as in the interesting case represented in Fig. 26. The details of the anatomy of the cyst and its history are furnished by Virchow in the *Archiv*, Bd. 101. A similar case, occurring in the cervical region, was published by Solly in the Med.-Chir. Transactions, vol. xl., p. 19. Finally, as serving to show how difficult it is to decide between the various forms of spinal congenital tumours clinically, an

FIG. 26.

An African child with a congenital sacral tumour. The tumour is a spina bifida with an obliterated pedicle. (After Virchow.)

apparently simple meningocele may be associated with a syringo-myelocele, as in the valuable case recorded by Mr. Clutton.[6] Such a condition may be conveniently termed syringo-meningocele. As the mesoblastic somites are so intimately related to the developing cord, the defects of one natually react upon the other. As a consequence of the formation of a cyst, or from more profound morbid changes, the arches of the vertebræ in the forms of spina bifida just considered are prevented from uniting across the median line. The malformations of the vertebræ are for the most part secondary to those of the cord, and the subject is far too extensive for consideration on the present occasion.

In concluding this lecture, I propose to draw attention to an important consideration which has been forced upon me, partly on embryological and partly on teratological grounds, and the subject may with fitness be introduced here, for the final links in the chain of reasoning were found whilst engaged on the material utilised in the preparation of these lectures. The central canal of the cord has long been a puzzle to morphologists; not long since, whilst dealing with certain forms of cysts, I ventured to state that although we are absolutely in the dark regarding the central canal of the

[6] Trans. Clin. Soc., vol. xix.

cord, nevertheless it is justifiable to regard it as an obsolete canal—that is to say, a canal once functional in the ancestors of the present vertebrata. This central canal, like obsolete passages in general, is extremely prone to become dilated and form a cyst, such dilatations being termed syringomyeloceles. It has recently been pointed out by Recklinghausen that certain forms of spina bifida, especially the varieties known as syringo-myelocele and syringo-meningocele, are very frequently associated with congenital defects in the alimentary canal, such as umbilical hernia, atresia ani, &c. In a fœtus born at nearly full time which I dissected, a spina bifida occulta with syringocele was accompanied by imperforate pharynx, obliteration of the vermiform appendix, and atresia ani. In a second fœtus, born at about the eighth month of gestation, the following defects were found associated. There was anencephalia; the spinal cord was represented by a tube with thin membrane-like walls, the tube being capable of admitting an ordinary penholder; from the sides of this tube the roots of the spinal nerves arose, and bore the same relation to it as the nerve roots bear to the sac of a syringomyelocele. The vertebral arches, from atlas to coccyx,

FIG. 27.

Pharynx, œsophagus, stomach, and lungs of a fœtus which was anencephalic and had a spina bifida. (Natural size.)

were widely open, but from the lower dorsal region downwards the cord and neural canal were covered in by the skin and superficial structures. There was an umbilical hernia, containing coils of small intestine; the large gut was represented by a tube four inches in length, which ran direct from the cæcum into the pelvis. The stomach was unusually small, and each lung was a rounded spongy mass of the size of a nut. (Fig. 27.) This association of defects of the lungs and intestine need not surprise us, for the lungs originate as a diverticulum from the fore gut. The association of defects of the central canal of the cord with malformations of the alimentary tract, including of course the lungs, is something more than casual; and a careful consideration of all the facts furnished by embryology, anatomy, and teratology induced me to publish in *Brain* (January, 1888) a paper containing arguments to the effect that *the brain and spinal cord must be regarded as an extremely modified section of the primitive alimentary canal.* The opinion that the cord is a modified segment of bowel need not be rejected on account of the apparently extraordinary nature of the metamorphosis: it is not more remarkable than the modification of a swim bladder into a lung, the assumption of respiratory functions by the urinary bladder as the allantois, or the transformation of opaque epithelial cells into a crystalline lens.

THE EFFECTS OF MODERATE DRINKING ON THE HUMAN CONSTITUTION;

ITS INFLUENCE ON LIVER, KIDNEY, HEART, AND BRAIN DISEASES.

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FORMERLY PHYSICIAN TO UNIVERSITY COLLEGE HOSPITAL, AND PROFESSOR IN UNIVERSITY COLLEGE, LONDON.

No. I.

IT having been so frequently said, as almost to have assumed the form of an aphorism, that a well-educated medical man is the most entertaining of all companions, one feels inclined to ask the question, Why is he so? more particularly as it requires a person to be himself possessed of a certain amount of talent before he is capable of appreciating talent in another; and the above remark is almost invariably observed to fall from the lips of those who are themselves naturally gifted. In my humble opinion the reason is not far to seek, seeing that the mentally gifted estimate the conversational powers of their companions in direct proportion to the amount of fresh ideas they derive from them. And the professional training of a medical man is such as not only to give him a special knowledge of medical matters, but to expand his mental faculties in a manner, and to a greater extent than the specific training of any other profession or avocation. The main factors leading to this exceptional result lie in the insight he acquires into the fundamental and immutable laws of organic and inorganic nature, during his studies in physiology, chemistry, physics, zoology, botany, and geology. For while the study of divinity, law, history, mathematics, and the classics go but little beyond stocking the mind with facts and general principles, and thus preparing it for the reception of new ideas, the information derived from listening to lectures on natural science, and more especially from working practically at it, develops the brain-power of observing, comparing, analysing, and generalising to a far greater extent than any other form of mental training. Consequently it may be truthfully said that, as a rule, the medical man's special studies enable him to take not only broader, but at the same time more original views on general topics than other men of precisely the same mental abilities and scholastic attainments. This fact is not improbably the reason why the well-educated medical man is not only regarded by the learned as an instructive companion; but likewise as one whose opinions on quasi-medical and semi-scientific social questions are always listened to with pleasure, and oftentimes even accepted with deference. The mere knowledge of this fact ought of itself to be sufficient to stimulate every member of the profession to make himself as fully acquainted as he possibly can with all the bearings of the alcoholic question, seeing that the subject of total abstinence as well as mere temperance is at present being hotly discussed by the laity, not alone in the light of an individual, social, and national question, but even in that of a purely hygienic one. And while the opinions of the profession are on all sides being eagerly sought for, they are not only freely canvassed, but oftentimes adversely commented upon, in consequence of their apparent want of uniformity as regards the effects of moderate drinking on the human body. No doubt it is partly in consequence of this divergence of opinion on questions purely medical, and seemingly so simple, that we are for ever having the unreasonable taunt that "doctors differ" dinned into our ears by people who fail to perceive that a difference of opinion among men who think for themselves is but a law of necessity, from the fact that human brains, like human faces, although possessing a marked general similarity, have nevertheless each its own special innate characteristic individuality. Consequently, differences of opinion on matters strictly appertaining to their own special calling is in no wise limited to the votaries of medicine, but are the common attributes of every other profession. Our spiritual advisers are not exempt from this weakness, even on some points of divine doctrine upon which *a priori* one might anticipate there could not possibly exist any schism. Notwithstanding this, however, as it is an undoubted fact that all minds of equal mental calibre and similar training must of necessity hold the same views on any given subject

when the data before them are identical, it naturally follows that there would be far less divergence of opinion among medical men regarding the medical as well as the social aspects of temperance were they cognisant of all the facts at present known of the therapeutical action of alcoholic beverages on the human constitution. For there can be no doubt that, even in spite of medical men's familiarity with the graver forms of disease directly traceable to intemperance, they are far, very far from having reached the goal of truth regarding either the advantages or disadvantages of moderate drinking. And it is upon this very part of the temperance question their opinions are most urgently demanded by the laity, and upon which, most unfortunately, such diverse dogmas are propounded by different members of the profession. There cannot, consequently, be two opinions regarding the desirability of our all trying to be on the same level in knowledge regarding the effects of alcoholic stimulants upon the frame when indulged in in small quantities, seeing that it would undoubtedly be, both individually and collectively, a threefold advantage. For, firstly, it would unquestionably be a professional benefit to minimise the injury sustained by us collectively from our giving utterance to undecided, and, what is still worse, sometimes even diametrically contrary opinions on the effects on the general health of alcohol taken in small quantities at a time. Secondly, it would be an individual advantage to all of us to be in a position to tell our associates something more about the effects of alcoholic drinks than they are already aware of. While, thirdly, the more information we acquire of the modes of action of small quantities of alcohol in health as well as in sickness, the better it will be for our patients.

It is because of there being at present such diverse views expressed regarding the influence moderate drinking has on the constitution that I am tempted to contribute my mite of knowledge to the general stock, in the hope that what I relate may suggest new ideas in the minds of others who, like myself, are interested in the study of this intricate question. For I regret to find that, notwithstanding there has already been so much written, and well written, on the action of alcohol when taken in excess, no one appears as yet to have thought it worth his while fully to tackle the subject of moderate drinking. The reason of this, perhaps, is not far to seek, seeing that a little reflection reveals the fact that, although the majority of persons may truthfully be said to be moderate drinkers, and consequently medical men see far more patients belonging to this category than any other, they possess but very little opportunity of studying the effects of alcohol, when thus indulged in, upon the constitution. For the following reasons: 1. There are not only no tables of statistics as to its effects in existence, but there are no means of acquiring them; the statistics of the effects of drunkenness, of which there are abundance of greater or lesser value, being unfortunately of no service whatever in solving the problem of the effects of moderate drinking either on mind or body. 2. In no instance are the effects sufficiently marked to necessitate any special form of treatment in a public institution. 3. The deleterious influences on the bodily functions are so insidious as in the early stages either totally to escape detection, or, what is more common, to lead them to be attributed to some entirely different cause. 4. The effects of moderate drinking manifest themselves in such a variety of different forms, that, even when their true nature is recognised, the general practitioner has not the opportunity of seeing a sufficient number of any one of them to admit of his drawing conclusions from them. 5. The men who have most experience of the severer forms of functional disease directly traceable to the effects of moderate drinking are, in general, merely those who, like myself, make liver and kidney diseases a special study; the liver, kidneys, heart, and brain being those organs of the body most affected by alcohol when indulged in within the limits of what is called moderation. Notwithstanding this fact, it being impossible for me or even anyone else specially engaged in the treatment of liver and kidney diseases, to collect a sufficiently large number of telling cases from which to deduce crucial data of the deleterious effects of small quantities of alcoholic stimulants habitually indulged in by temperate men, I purpose adopting the plan of drawing conclusions from the statistical data of the effects of alcohol on the human constitution, when it is taken in the form of what is called "nipping"—that is to say, small quantities only being taken at a time, but frequently, in the course of the day. Of these, fortunately, the Registrar-General's reports of our national mortality in different industries furnish us with something approaching to reliable data. So I shall make use of them, along with some German statistics of a similar character, in illustrating the probable pathological effects of moderate drinking on the human constitution. For when one cannot get what he wants, it is good policy to make use of what he has got, on the principle that half a loaf is better than none. 6. Added to all these drawbacks to the formulating of reliable conclusions regarding both the direct and indirect effects of alcoholic stimulants, taken in small quantities at a time, upon the vital functions there is yet the other of reconciling different minds with what is exactly meant by the term "moderate drinking," seeing that a quantity which one would call moderate is not at all unlikely to be by another designated immoderate drinking. Before attempting to define the intrinsic value of the two words, let me remind the reader that the mere use of the term "moderate," when applied to anything whatever—whether it be to walking exercise, or anything else,—implies that it is merely a relative, and consequently a fluctuating quantity, according to the capabilities of the individual and the circumstances of the case. For a moderate walk to a weak person is quite a different thing from a moderate walk to an athlete. So the term "moderate drinking," when applied to a girl in her teens, is something quite different from the term "moderate drinking" when applied to a robust man Consequently its intrinsic value is not to be measured by quantity, but by the effects; and fortunately, as every thinking being is capable of doing this for himself, it is quite unnecessary for me to fix upon any given quantity, but merely to say that by moderate drinking I mean the indulging in alcoholic stimulants well within the margin of intoxication. With these preliminary remarks I now encer upon my task, and as it would be utterly impossible for me, or anyone else, to treat exhaustively such a wide subject as the action of alcohol on the human frame in the short space allotted to one in a weekly journal, I shall, for the present, confine my remarks on the effects of moderate drinking to those more particularly observed on the four important and indispensable organs of the body—namely, the liver, kidneys, heart, and brain.

TRACHEOTOMY PERFORMED ON AN ADULT FOUR YEARS AND A HALF AGO FOR INTRA-LARYNGEAL DISEASE;

PATIENT NOW ALIVE AND WELL, BUT STILL WEARING TRACHEOTOMY TUBE.

BY TALFOURD JONES, M.B. LOND.,

UNIVERSITY MEDICAL SCHOLAR; HON. CONSULTING PHYSICIAN (LATE PHYSICIAN) TO THE BRECONSHIRE INFIRMARY.

ON July 9th, 1883, I was asked to go and see Mrs. P——, a widow in her fiftieth year, who was said to be suffering from great difficulty in breathing. I found her dressed and sitting up, and in extreme distress; her breathing was stridulous and croupy; her voice was reduced to a faint, hoarse whisper. There was frequent and troublesome cough, with a muco-purulent expectoration. The dyspnœa was so urgent that a laryngoscopic examination could not be attempted. There was no trace of ulceration, or of diphtheritic or other exudation in the pharynx. There was some tenderness of the larynx and a little pain, but not much; no dysphagia. There was no evidence or indication of tubercle or cancer in any part of the body; no evidence of specific disease; no kidney disease; no cachexia.

The mischief had come on gradually thus. It was stated by her son "that she had never been troubled with her throat till the last week in March, 1883, when she experienced a tightness in the larynx, and a cough came on." Those symptoms continued, "sometimes a little worse, sometimes a little better," until a fortnight before the date of my visit, when "it became very difficult for her to breathe, and she daily continued to get worse." For some time there had been much hoarseness and expectoration. She was immediately ordered to take every four hours emetic doses of powdered ipecacuanha combined with aperient doses of

senna. Next morning, July 10th, the breathing was found to be slightly better. She had been very sick and had brought up a quantity of phlegm, and her bowels had acted freely. The question of benign or malignant intra-laryngeal growth or ulceration was considered. The disease was evidently below the epiglottis and in the larynx. Due consideration was given to the possibility of specific intra-laryngeal mischief, and it was, on the whole, thought advisable to try iodide of potassium. This she was given in ten-grain doses every three hours, with small expectorant doses of ipecacuanha wine. She was informed that it might soon be found necessary to open her windpipe to save her from dying from suffocation. To this she gave her ready assent. On the same day (the 10th), towards evening, the dyspnœa increased; recession of the soft parts of the thorax during inspiration became marked; and it was decided to operate.

Taking into consideration the chronicity of the laryngeal trouble, its apparent extensiveness, and the consequent possibility that if the patient survived she would need to wear the tube for a long while, it was thought best to steer quite clear of the larynx; and therefore it was decided not to do laryngotomy, or even laryngo-tracheotomy, but to do tracheotomy, and that as high as possible. A rather long incision, precisely in the median line, was made with a sharp scalpel through the intervals between the sterno-hyoid and the sterno-thyroid muscles. The rest of the operation, until the trachea was reached, was almost entirely done by means of a *blunt* scalpel—i.e., a scalpel purposely blunted by rubbing its edge and point against a stone,—blunt hooks, and my finger-nail. Muscles and veins were drawn aside, the isthmus of the thyroid was pulled down, and the fascia was torn until the trachea was reached and a portion of its surface denuded; then, and when the rings of the trachea could be felt and were also plainly visible, and when no blood whatever was oozing, the trachea was opened by a cut from below upwards with a narrow-bladed curved bistoury from the fourth tracheal ring to the lower border of the cricoid cartilage. A double silver tracheotomy tube, with laryngeal opening, was readily introduced, and the patient had immediate relief. There were no signs of exudation or of false membrane on the inner surface of the trachea or on the adjacent cricoid surface as far as could be seen.

On the fourth day after the operation, on temporarily removing the tube and closing the tracheal hole with the finger, the patient could whisper through her larynx, but the tube had to be immediately replaced because of dyspnœa. On the fifth night it was thought best to give her a soothing and sleeping draught, for she had had two very restless and sleepless nights, chiefly due to cough and to troublesome expectoration of muco-purulent secretion. She was ordered a draught containing twelve grains of Liebreich's chloral hydrate, and one-twelfth of a grain of Battley's acetate of morphia. This gave her a good night's rest, and not only did her no harm, but did her most positive good, and gave her much comfort and relief; and this draught was repeated nightly. On the eighth day there seemed to be almost complete stenosis of the larynx. She could not whisper, nor could she for a moment bear closure of the tracheal opening. A No. 5 soft and flexible French bougie was passed upwards through the hole in the trachea into the larynx; but it became bent in its progress, and could not be guided through the glottis into the pharynx with the gentle force that was used. On July 26th (sixteenth day) it was resolved to resume the iodide, which had been entirely discontinued after the operation, and she was given ten grains of iodide of potassium three times a day. On Aug. 4th (twenty-fourth day) an eighth of a grain of perchloride of mercury was added to each dose of the iodide, but after taking this for six days it was discontinued. On Aug. 14th (thirty-fourth day) she was given a grain of calomel with a quarter of a grain of opium three times a day, which she continued to take till Sept. 1st, when in consequence of slight ptyalism the pills were stopped. But she continued taking her chloral and morphia night draught almost every night till Sept. 18th.

For many weeks after the operation the patient was most carefully tended and watched by a nurse, who voluntarily remained with her day and night, and most efficiently carried out all directions respecting the cleansing of the tube and the management of the patient. It is quite impossible to exaggerate the value and importance of good and skilful nursing in such a case. It should be mentioned that the patient's breath was not fetid at any time, and if there was a perichondritis, there was no evidence of caries or necrosis of the cartilages, and no papillomatous or other solid particles were ever observed in the expectoration. Late in September, 1883, with my sanction, and indeed at my desire, the patient went to London for further advice, and through the kindness of friends she obtained admission as an in-door patient into St. George's Hospital, under the care of Mr. Whipham. He also prescribed iodide of potassium, which she took in fifteen-grain doses, with citrate of iron, three times a day, for a considerable time. She derived no apparent benefit in London, and returned home to the country on Jan. 4th, 1884, and continued taking the iodide for two or three weeks longer. But late in January of that year she began to whisper sounds, though in such a way that it was all but impossible to understand her. In time, however, her speech very slowly and gradually improved. I last saw her in May, 1887, when leaving Breconshire for Eastbourne, and then she was able to utter whispered words with sufficient distinctness to be understood by one who looked at her and carefully watched the movements of her lips.

Her son reports to me as follows, in a letter dated 18th of February of the present year: "My mother can converse quite freely in a kind of whisper. I can easily understand her even when she stands at one end of a room and I at the other; in fact, I can easily make out what she says when she is downstairs and I am upstairs, or *vice versâ*. She also goes out to market when the weather is favourable, and she can, with scarcely any difficulty, transact her business with the farmers' wives. She still wears the same silver tubes you gave her before she went to St. George's Hospital. The outer tube she now leaves in without changing for a couple of days, but the inner one she cleanses two or three times a day on the average. She cannot breathe at all through the larynx if the opening in the trachea is closed with the finger. A vulcanite tube was tried at St. George's Hospital, but without success, for it was with great difficulty my mother could breathe through it, and after wearing it for about an hour the silver tube had to be replaced. She is now in her usual health."

The differential diagnosis of intra-laryngeal growths must often be a difficult problem; for in consequence of the independence or isolation if one may so term it, of the laryngeal lymphatics and the laryngeal glands, we must often expect to find primary intra-laryngeal disease, even of a malignant or specific nature, more or less absolutely confined to the laryngeal tissues only. Readers of this case must use their own judgment in coming to a diagnosis of the laryngeal trouble. Most likely certain cicatricial changes have occurred in the larynx of a healing nature to which the medicinal treatment has most probably very materially conduced.

This case has some points of resemblance to that of Sir Morell Mackenzie's illustrious patient, the Crown Prince of Germany. But I will only allude to one of these points, and with the hope that some practical good may follow. My patient, as already stated, suffered on the third and fourth nights after the operation from general distress, discomfort, and sleeplessness. On the fifth night she was given a chloral and morphia draught with most marked benefit. She appreciated its value so much that for a long time she would on no account venture to do without it. It acted most beneficially, and undoubtedly conduced to her recovery. Small doses of morphia, such as she took—viz., one-twelfth of a grain,—do, in my experience, quite counteract the depressive action of chloral. It is important that the purest crystallised chloral should be prescribed, and it is well to make it a rule to use no other chloral than Liebreich's. For some weeks after the operation there was a frequent troublesome muco-purulent expectoration, which worried the patient; but by the help of the evening draught her nights were made comparatively comfortable, and, in fact, her nights were better than her days.

The fear of converting what is strictly intended to be a short paper into a long one compels me to refrain from offering further detailed remarks on this case, or on the operation of tracheotomy in general. But, as I have had the good fortune to save several lives by tracheotomy, I scarcely like omitting to say, in describing this the first of the cases I have ever published, that personally I owe more to Trousseau's book for advice, knowledge of the operation, and for consequent

when the data before them are identical, it naturally follows that there would be far less divergence of opinion among medical men regarding the medical as well as the social aspects of temperance were they cognisant of all the facts at present known of the therapeutical action of alcoholic beverages on the human constitution. For there can be no doubt that, even in spite of medical men's familiarity with the graver forms of disease directly traceable to intemperance, they are far, very far from having reached the goal of truth regarding either the advantages or disadvantages of moderate drinking. And it is upon this very part of the temperance question their opinions are most urgently demanded by the laity, and upon which, most unfortunately, such diverse dogmas are propounded by different members of the profession. There cannot, consequently, be two opinions regarding the desirability of our all trying to be on the same level in knowledge regarding the effects of alcoholic stimulants upon the frame when indulged in in small quantities, seeing that it would undoubtedly be, both individually and collectively, a threefold advantage. For, firstly, it would unquestionably be a professional benefit to minimise the injury sustained by us collectively from our giving utterance to undecided, and, what is still worse, sometimes even diametrically contrary opinions on the effects on the general health of alcohol taken in small quantities at a time. Secondly, it would be an individual advantage to all of us to be in a position to tell our associates something more about the effects of alcoholic drinks than they are already aware of. While, thirdly, the more information we acquire of the modes of action of small quantities of alcohol in health as well as in sickness, the better it will be for our patients.

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The reason of this, perhaps, is not far to seek, seeing that a little reflection reveals the fact that, although the majority of persons may truthfully be said to be moderate drinkers, and consequently medical men see far more patients belonging to this category than any other, they possess but very little opportunity of studying the effects of alcohol, when thus indulged in, upon the constitution. For the following reasons: 1. There are not only no tables of statistics as to its effects in existence, but there are no means of acquiring them; the statistics of the effects of drunkenness, of which there are abundance of greater or lesser value, being unfortunately of no service whatever in solving the problem of the effects of moderate drinking either on mind or body. 2. In no instance are the effects sufficiently marked to necessitate any special form of treatment in a public institution. 3. 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Notwithstanding this fact, it being impossible for me or even anyone else specially engaged in the treatment of liver and kidney diseases, to collect a sufficiently large number of telling cases from which to deduce crucial data of the deleterious effects of small quantities of alcoholic stimulants habitually indulged in by temperate men, I purpose adopting the plan of drawing conclusions from the statistical data of the effects of alcohol on the human constitution, when it is taken in the form of what is called "nipping"—that is to say, small quantities only being taken at a time, but frequently, in the course of the day. Of these, fortunately, the Registrar-General's reports of our national mortality in different industries furnish us with something approaching to reliable data. So I shall make use of them, along with some German statistics of a similar character, in illustrating the probable pathological effects of moderate drinking on the human constitution. For when one cannot get what he wants, it is good policy to make use of what he has got, on the principle that half a loaf is better than none. 6. Added to all these drawbacks to the formulating of reliable conclusions regarding both the direct and indirect effects of alcoholic stimulants, taken in small quantities at a time, upon the vital functions there is yet the other of reconciling different minds with what is exactly meant by the term "moderate drinking," seeing that a quantity which one would call moderate is not at all unlikely to be by another designated immoderate drinking. Before attempting to define the intrinsic value of the two words, let me remind the reader that the mere use of the term "moderate," when applied to anything whatever—whether it be to walking exercise, or anything else,—implies that it is merely a relative, and consequently a fluctuating quantity, according to the capabilities of the individual and the circumstances of the case. 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Taking into consideration the chronicity of the laryngeal trouble, its apparent extensiveness, and the consequent possibility that if the patient survived she would need to wear the tube for a long while, it was thought best to steer quite clear of the larynx; and therefore it was decided not to do laryngotomy, or even laryngo-tracheotomy, but to do tracheotomy, and that as high as possible. A rather long incision, precisely in the median line, was made with a sharp scalpel through the intervals between the sterno-hyoid and the sterno-thyroid muscles. The rest of the operation, until the trachea was reached, was almost entirely done by means of a *blunt* scalpel—i.e., a scalpel purposely blunted by rubbing its edge and point against a stone,—blunt hooks, and my finger-nail. Muscles and veins were drawn aside, the isthmus of the thyroid was pulled down, and the fascia was torn until the trachea was reached and a portion of its surface denuded; then, and when the rings of the trachea could be felt and were also plainly visible, and when no blood whatever was oozing, the trachea was opened by a cut from below upwards with a narrow-bladed curved bistoury from the fourth tracheal ring to the lower border of the cricoid cartilage. A double silver tracheotomy tube, with laryngeal opening, was readily introduced, and the patient had immediate relief. There were no signs of exudation or of false membrane on the inner surface of the trachea or on the adjacent cricoid surface as far as could be seen.

On the fourth day after the operation, on temporarily removing the tube and closing the tracheal hole with the finger, the patient could whisper through her larynx, but the tube had to be immediately replaced because of dyspnœa. On the fifth night it was thought best to give her a soothing and sleeping draught, for she had had two very restless and sleepless nights, chiefly due to cough and to troublesome expectoration of muco-purulent secretion. She was ordered a draught containing twelve grains of Liebreich's chloral hydrate, and one-twelfth of a grain of Battley's acetate of morphia. This gave her a good night's rest, and not only did her no harm, but did her most positive good, and gave her much comfort and relief; and this draught was repeated nightly. On the eighth day there seemed to be almost complete stenosis of the larynx. She could not whisper, nor could she for a moment bear closure of the tracheal opening. A No. 5 soft and flexible French bougie was passed upwards through the hole in the trachea into the larynx; but it became bent in its progress, and could not be guided through the glottis into the pharynx with the gentle force that was used. On July 26th (sixteenth day) it was resolved to resume the iodide, which had been entirely discontinued after the operation, and she was given ten grains of iodide of potassium three times a day. On Aug. 4th (twenty-fourth day) an eighth of a grain of perchloride of mercury was added to each dose of the iodide, but after taking this for six days it was discontinued. On Aug. 14th (thirty-fourth day) she was given a grain of calomel with a quarter of a grain of opium three times a day, which she continued to take till Sept. 1st, when in consequence of slight ptyalism the pills were stopped. But she continued taking her chloral and morphia night draught almost every night till Sept. 18th.

For many weeks after the operation the patient was most carefully tended and watched by a nurse, who voluntarily remained with her day and night, and most efficiently carried out all directions respecting the cleansing of the tube and the management of the patient. It is quite impossible to exaggerate the value and importance of good and skilful nursing in such a case. It should be mentioned that the patient's breath was not fetid at any time, and if there was a perichondritis, there was no evidence of caries or necrosis of the cartilages, and no papillomatous or other solid particles were ever observed in the expectoration. Late in September, 1883, with my sanction, and indeed at my desire, the patient went to London for further advice, and through the kindness of friends she obtained admission as an in-door patient into St. George's Hospital, under the care of Mr. Whipham. He also prescribed iodide of potassium, which she took in fifteen-grain doses, with citrate of iron, three times a day, for a considerable time. She derived no apparent benefit in London, and returned home to the country on Jan. 4th, 1884, and continued taking the iodide for two or three weeks longer. But late in January of that year she began to whisper sounds, though in such a way that it was all but impossible to understand her. In time, however, her speech very slowly and gradually improved. I last saw her in May, 1887, when leaving Breconshire for Eastbourne, and then she was able to utter whispered words with sufficient distinctness to be understood by one who looked at her and carefully watched the movements of her lips.

Her son reports to me as follows, in a letter dated 18th of February of the present year: "My mother can converse quite freely in a kind of whisper. I can easily understand her even when she stands at one end of a room and I at the other; in fact, I can easily make out what she says when she is downstairs and I am upstairs, or *vice versâ*. She also goes out to market when the weather is favourable, and she can, with scarcely any difficulty, transact her business with the farmers' wives. She still wears the same silver tubes you gave her before she went to St. George's Hospital. The outer tube she now leaves in without changing for a couple of days, but the inner one she cleanses two or three times a day on the average. She cannot breathe at all through the larynx if the opening in the trachea is closed with the finger. A vulcanite tube was tried at St. George's Hospital, but without success, for it was with great difficulty my mother could breathe through it, and after wearing it for about an hour the silver tube had to be replaced. She is now in her usual health."

The differential diagnosis of intra-laryngeal growths must often be a difficult problem; for in consequence of the independence or isolation if one may so term it, of the laryngeal lymphatics and the laryngeal glands, we must often expect to find primary intra-laryngeal disease, even of a malignant or specific nature, more or less absolutely confined to the laryngeal tissues only. Readers of this case must use their own judgment in coming to a diagnosis of the laryngeal trouble. Most likely certain cicatricial changes have occurred in the larynx of a healing nature to which the medicinal treatment has most probably very materially conduced.

This case has some points of resemblance to that of Sir Morell Mackenzie's illustrious patient, the Crown Prince of Germany. But I will only allude to one of these points, and with the hope that some practical good may follow. My patient, as already stated, suffered on the third and fourth nights after the operation from general distress, discomfort, and sleeplessness. On the fifth night she was given a chloral and morphia draught with most marked benefit. She appreciated its value so much that for a long time she would on no account venture to do without it. It acted most beneficially, and undoubtedly conduced to her recovery. Small doses of morphia, such as she took—viz., one-twelfth of a grain,—do, in my experience, quite counteract the depressive action of chloral. It is important that the purest crystallised chloral should be prescribed, and it is well to make it a rule to use no other chloral than Liebreich's. For some weeks after the operation there was a frequent troublesome muco-purulent expectoration, which worried the patient; but by the help of the evening draught her nights were made comparatively comfortable, and, in fact, her nights were better than her days.

The fear of converting what is strictly intended to be a short paper into a long one compels me to refrain from offering further detailed remarks on this case, or on the operation of tracheotomy in general. But, as I have had the good fortune to save several lives by tracheotomy, I scarcely like omitting to say, in describing this the first of the cases I have ever published, that personally I owe more to Trousseau's book for advice, knowledge of the operation, and for consequent

good results, than to all the works of subsequent writers put together, and I would respectfully urge every intending operator who may not happen to be acquainted with the writings of the great French physician to read, learn, and digest Trousseau before he ventures to perform the operation of tracheotomy.

ON POISONING BY ANTIPYRIN.

BY OSCAR JENNINGS, M.D., M.R.C.S.

ANTIPYRIN is now so much in fashion that it has become, at any rate in France, a universal panacea, and used by the general public almost without restriction. The following case, which has recently come under my observation, shows, however, that it is not without danger even in the hands of those acquainted with its action.

Miss X——, sixty-seven years of age, consulted me for rheumatoid arthritis, affecting chiefly the hands. Her maternal grandfather was gouty, and she has always suffered more or less from arthritic symptoms in the knee joints. The heart is peculiar, in that it normally beats only about thirty-five pulsations to the minute. This lady has recently complained of swelling of the hands, without positive pain, but with sensations of pricking, which interfered with her usual occupation, that of preparing and classifying specimens relating to natural history. (It may be mentioned that she is a distinguished conchologist, well known in scientific circles.) I recommended her to take antipyrin, which seemed to be the more indicated as she had already been relieved on a former occasion of rheumatic troubles by salicylate of soda, which had, however, left her greatly weakened. The treatment was commenced on Jan. 23rd, and for eight days she took two grammes and a half of antipyrin daily, when on the 31st she was surprised to see that she was covered with erythematous patches on the arms, and at the same time felt that her eyes were uncomfortable. The following night she scarcely slept at all; the feet were icy cold; no nausea; no giddiness. The next morning she discovered that her face was red and extraordinarily swollen. The eyelids were almost closed by the swelling, and left only a narrow slit for vision. Pushing her investigations further, she saw that the rash was general and of the colour of pomegranate, arranged in patches the size of a threepenny piece, separated one from another by intervals scarcely noticeable at first sight, but distinctly recognisable upon closer examination, and about a millimetre in diameter. The patient had no appetite, and did not attempt to eat; she only took a small quantity of tea during the day, which she passed sitting by the fire. Curiously enough, this condition gave rise to no suffering; all that was felt was a strange sensation "as if the inside of the body was filled with ice." There was but little itching. The following day the condition was as follows. The eyes which first attracted my attention were the seat of slight catarrhal conjunctivitis—already, however, on the decline. There was irritation of the nasal fossæ, and hoarseness of the voice. Indeed, one might have thought of intoxication by iodide. The puffiness and swelling of the face had partly subsided, but the rash remained on the trunk and extremities. The pulse was twice as fast as usual, 76 to the minute; but notwithstanding this, for the patient, almost febrile acceleration, the temperature was lowered, the surface remaining cold. Beyond a slight buzzing in the ears, there was no other sensorial disturbance. As treatment, I merely prescribed small doses of tincture of belladonna. Next day the pulse was 56. The catarrhal condition of the oculo-nasal membrane was decreasing. Since then it has disappeared, and the eruption is gradually passing away. But the patient still suffers from considerable prostration and intermittent sensations of cold.

The following cases have been related to me since this occurrence, and there is no doubt as to their authenticity.

Mrs. Y—— was treated by antipyrin in order to be *radically* cured of rheumatic pains. She was ordered five grammes a day. "The second day," writes Miss X——, "my friends went to see this lady, who is one of the most intelligent, one of the most witty, and one of the most charming women in Paris. They found her with her head between her hands, the elbows resting upon the knees, rocking backwards and forwards, repeating incessantly, 'I don't know what is the matter with me; I remember nothing; I am becoming like an idiot; I am going mad.' She was subsequently confined to her bed with severe gastro-enteritis for six weeks, and kept her room for three months. Lately she has improved, and has recovered her lost intelligence."

Mrs. Z—— was treated by antipyrin. "Her body swelled, as did also the inside of the throat, which was obstructed to such an extent that for six hours she was threatened with suffocation. The skin was covered with red spots, without itching, and the perspiration dripped off the extremities of the fingers."

Cases of poisoning by antipyrin have been reported by Drs. Whitehouse and Barber in the *New York Medical Record*, and by Dr. Allen Sturge in the *British Medical Journal*. Dr. Barber's patient was seized with intense itching, erythema, and urticaria soon after taking a dose of fifteen grains. The face swelled and the features were obliterated. The symptoms were relieved by an emetic, and after a purge the patient was restored to his usual health. Dr. Whitehouse gave seven grains and a half to a child. Two minutes later there was violent epigastric pain, general urticaria, and loss of consciousness. A seventieth of a grain of atropine was given, and in a few minutes the symptoms had disappeared. Dr. Allen Sturge gave only four grains (twenty-five centigrammes) for the relief of migraine. Five minutes afterwards the "deadly sickness" gave way and an "expanding sensation was felt rising from the stomach upwards. The eyes were suffused, tears began to flow; the breathing became hard and laboured, accompanied by a feeling of suffocation." There was violent cough, profuse perspiration, urticaria on the insides of both thighs, coppery taste, metallic smell, singing in the ears, and the pulse was quick and full. Five hours after the patient was in his normal condition. My case differs from those quoted, in that the eruption, an erythematous rash, was accompanied by little if any itching, and the urticaria so characteristic of medicinal intolerance by idiosyncrasy was entirely absent. There was no diaphoresis. In my patient the tolerance was perfect until she had become saturated with the drug. Beyond the vaso-motor disturbances in the skin and mucous membranes, the most striking point in the case was the existence of so profound a modification in the nervous centres as the symptoms indicated without serious discomfort or uneasiness.

In his second communication on Antipyrin[1] Professor Germain Sée writes in the following terms of the symptoms presented by some of his patients: "Once in twelve or fifteen cases antipyrin produces—but only when it is continued for more than ten or fifteen days, and in large doses, and especially in women—an eruption having the appearance of urticaria, or of a rash upon the hands and the feet, which lasts two or three days and disappears without leaving any trace; it is a medicinal exanthem, like that of quinine." There is a vast difference between this insignificant eruption and the manifestations described above. And the more I use antipyrin the more I am convinced that in certain cases, particularly in old people and in persons sensitive to the drug, it should be prescribed with the greatest circumspection. It is usual at present to put down all the untoward consequences to the score of adulteration, but this view still remains to be proved. It is, however, certain that alarming symptoms may follow absorption of antipyrin even in small doses, and it also seems likely that these may be relieved by the administration of belladonna, and antagonised where there is real danger by the hypodermic injection of atropine.

[1] Bulletins de l'Académie de Médecine, Sept. 6th, 1887.

HUNTERIAN SOCIETY.—The following is a list of the officers elected at the annual general meeting on Feb. 8th, 1888, for the ensuing twelve months:—President: R. Clement Lucas, B.S. Vice-Presidents: Messrs. G. J. B. Stevens and G. B. Hicks; Drs. Fletcher Beach and Heinrich Port. Treasurer: Dr. H. I. Fotherby. Trustees: Dr. H. I. Fotherby and Mr. D. de Berdt Hovell. Librarian: Mr. T. Rowing Fendick. Orator: Dr. G. E. Herman. Secretaries: Dr. F. Charlewood Turner and Mr. John Poland. Council: Drs. H. Gervis, Dundas Grant, and J. H. Stowers; Messrs. S. H. Appleford, T. E. Bowkett, P. L. Burchell, F. M. Corner, J. S. E. Cotman, W. Rivington, Isaac Scarth, C. J. Symonds, and R. G. Tatham. Auditors: Dr. G. E. Herman; Messrs. Waren Tay, T. Rowing Fendick, and J. S. E. Cotman.

THE GEOGRAPHICAL DISTRIBUTION OF CANCEROUS DISEASE IN THE BRITISH ISLES.

BY ALFRED HAVILAND, M.R.C.S.,
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(*Continued from page 317.*)

THE DISTRIBUTION OF CANCEROUS DISEASE IN GREAT BRITAIN.

England and Wales.

HAVING found that women were so much more prone than men to be attacked by cancer, and that the organs, the uterus and mammæ, which were principally affected, afforded the least unmistakable forms of these diseases, I determined to begin the inquiry by studying the distribution of cancer amongst females; and I will now briefly recapitulate the conclusions that I laid before the Medical Society of London in 1868, as after nearly twenty years' research, unassisted in any way whatever, I find that the fresh facts accumulated within that long period only tend to confirm what I then had discovered.

1. *Density of population.*—The mortality from cancer does not seem to bear any relation to the density of the population, nor yet to the general mortality from "all causes," inasmuch as it can be shown that where the least mortality from cancer obtains, there the greatest density exists; and where the greatest mortality obtains, there the density is below the average.

2. *General mortality.*—In relation to the general death-rates, the groups in which cancer proved most fatal had an average annual mortality below the average; whilst in the most unhealthy districts the deaths from cancer only amounted to the fifth degree of mortality.

3. *Sanitation and cancer.*—In a paper which I read in London in 1886 before the Collective Investigation Committee on "Sanitation and the Increase of Cancer" are the following remarks on this subject.

A few years ago[1] the late Dr. William Farr, C.B., F.R.S., selected thirteen registration districts, widely separated from each other, as examples of the effect of sanitary work on the public health, and gave their annual death-rates from "all causes" per 1000 living consecutively for each of the decennial periods 1841-50, 1851-60, and 1861-70, as follows:—North Witchford (Cambs), 27, 21, 20; Whittlesey (Cambs), 25, 23, 21; Wisbech (Cambs), 25, 22, 20; Orsett (Essex), 24, 21, 18; Salisbury (Wilts), 28, 24, 20; Stoke-Damerel (Devon), 26, 23, 21; Wolverhampton (Stafford), 27, 28, 24; Coventry (Warwick), 27, 25, 21; Macclesfield (Cheshire), 26, 25, 23; Hull (Yorkshire), 31, 25, 26; Newport (Mon), 24, 22, 21; Merthyr Tydvil (Glam.), 28, 29, 25; and Crickhowell (Brecon), 27, 25, 23, respectively. These are remarkable and encouraging facts when considered in connexion with improvements in drainage, water supply, and other sanitary work in these districts. But amidst all this decline in general mortality, there was, however, one disease at least—cancer—that more than held its own in spite of sanitation; for in these thirteen exemplary districts, as well as throughout England and Wales, it has not only maintained its position, but has gained ground at a rate that requires serious consideration. The march of this disease during the two decennial periods 1851-1860 and 1861-70 among females in these thirteen districts will sufficiently show how impotent our present sanitary work is in coping with it. I have selected the deaths from cancer among females, this sex suffering, as I have said before, from its ravages considerably more than males in England and Wales; for instance, during the three last decennial periods the annual death-rates from this cause were as follows to every 10,000 of each sex living: 1851-1860, males 1·95, females 4·34; 1861-1870, males 2·44, females 5·23; 1871-1880, males 3·15, females 6·22. The above thirteen districts during the decennial period 1851-1860 had a mean female population of 275,860, amongst whom died 1129 from cancer, equal to an annual death-rate of 4·09. In 1861-70 this female population was increased to 298,592, of whom cancer killed 1495, equal to a yearly mortality of 5·00. It will be seen from these figures, when compared with those of England, that cancer among females in these thirteen districts had a death-rate rather below than above the average; and if we take the death-rates at certain age-periods after twenty-five years and upwards, it will be found that these districts do not differ much from the country generally. Thus the annual death-rates from cancer among females at different age-periods to every 10,000 women living at those ages are as follows for England and Wales and the thirteen districts:—

	AGE-PERIODS.					
	25	35	45	55	65	75
England and Wales, 1851-60	1·41	5·92	12·78	18·53	23·51	23·41
The 13 districts	1·36	7·48	13·20	17·27	23·09	20·01
England and Wales, 1861-70	1·63	6·73	15·38	23·00	28·10	28·26
The 13 districts	2·06	6·96	15·28	23·39	25·03	29·26
Mean England and Wales, 1851-70	1·51	6·32	14·08	20·76	25·80	25·83
The 13 districts	1·71	7·22	14·24	20·33	24·07	24·63
Excess (+) and defect (−) in 13 districts	+·20	+·90	+·16	−·43	−1·73	−1·20

The same can be more simply shown by a comparison of the death-rates of women from this cause above thirty-five years of age with those which obtain throughout England and Wales for the two decennial periods. The annual death-rates among women above thirty-five years of age to every 10,000 living are as follows:—

1851-1860, England and Wales	12·98
" " Thirteen districts	12·89
1861-1870, England and Wales	15·64
" " Thirteen districts	15·15

Showing a mean increase in England of 2·66 and in the thirteen districts of 2·26 annually to every 10,000 women living. Among these thirteen districts are three riparial districts, having sites on or near rivers that occasionally flood their banks; these are high mortality districts in accordance with the law I have laid down, and are coloured dark blue in my map; they are North Witchford, Stoke-Damerel, and Hull, and their mean death-rates from cancer among women at and above thirty-five years are as follows: 1851-60, 16·12; and 1861-70, 16·49. This increase is not so great as among the younger periods—twenty-five and fifty-five. Thus, among the thirteen districts it was 7·80 in 1851-60, and 8·28 in 1861-70; whilst throughout England for these age periods the rates were 5·61 and 6·67. In these thirteen districts the female death-rate was—

Phthisis	in 1851-60, 27·74; in 1861-70, 25·14 − 2·60
Cancer	in 1851-60, 4·09; in 1861-70, 5·00 + 0·91

A decided increase, although not so large as in many other instances; still the increase is there in spite of sanitation, and in conjunction with the decrease in the mortality from phthisis, which last is an important factor in the general death-rate.

The two great facts connected with the distribution of cancer in England and Wales were:—

1. That the groups of high mortality districts coloured in shades of blue and dark blue on the map[2] were coincident with low-lying areas, sheltered from the direct influence of the prevailing winds, and traversed by fully formed rivers, which seasonally flood the tertiary, post-tertiary, and alluvial adjacent riparian land after autumnal and winter rains or heavy snowstorms, such floods leaving behind them areas of dead vegetable matter, which invariably undergoes decomposition, rendering the soil sour and the subsequent vegetation rank and noxious to cattle, sheep, and horses. In illustration of this fact I will simply enumerate some of the rivers along which these high mortality districts are to be found. First in importance comes the Thames and its tributaries, which will be discussed further on; then, beginning from the north, we get the Tweed, not only influencing the mortality in the district of Berwick in England, but, as we shall presently see, the whole county of Berwick in Scotland; and the mining counties of Northumberland and Durham, with their rivers Tyne and Wear. Were we to depend upon the county death-rate we should be led into error, and should not be able to extricate ourselves

[1] Registrar-General's Thirty-seventh Annual Report, pp. 9 to 21.

[2] This map and its companion one of phthisis may be still obtained separately from Maclachlan and Stewart, Edinburgh, and A. Johnston, 6, Paternoster-buildings, E.C.

by assuming that "these mining counties contain in their population a much larger proportion of males, and, what is still more important, a much larger proportion of young persons, than the average; and it may very possibly be that the low cancer-rate is simply or in large measure due to these peculiarities of age and sex distribution, and not to any geographical conditions." Now, if we take the elevated districts of Northumberland and Durham, which give rise to these rivers, they are found to have the lowest mortality from cancer; whereas, when they reach the low lands, which they flood, at a point where they either traverse or skirt the riparial districts of Houghton-le-Spring, Sunderland, South Shields, Newcastle-upon-Tyne, and Tynemouth, there we find a group of high mortality districts clustering around these fully formed rivers, where the young persons and excess of males are mostly to be found. On the western side of England there are the Eden and Derwent groups, traversed by the outlets of the waters of the lake district. Mr. Butlin, in his report, which will be briefly discussed presently, remarks upon the low mortality of Ulverston, although it is "a well-watered district." It must be remembered that the lakes in this district are all on a high level above the sea, and that they check rather than promote flooding of the lands below them. This is the case, too, south of the Westmoreland and Cumberland water-parting, which separates the catchment basins of the northern and southern rivers and lakes of this district. Windermere Lake is 108ft. above the sea level, and Easthwaite and Coniston waters are still higher. Moreover, the river Leven, which drains them, is a short river not given to flooding its banks. Again, the Duddon, the Leven, and the Kent rivers opening into Morecambe Bay have their mouths free to admit the prevailing winds—an important factor when discussing local climates. Ulverston, which contains the lakes and rivers mentioned, still preserved in the ten years 1861-1870 its low mortality—namely, females at "all ages" 3·46, and between thirty-five and sixty-five 9·65, England having a death-rate of 5·23 and 13·27 respectively. Its male death-rate was also low—1·47, that of England being 2·44. On the protected side of the water-parting (of which Dunsmail Raise, known to tourists, is a part) all things are changed. The river valleys of the Eden and Derwent are protected, have long and tortuous courses, and whilst they receive the water draining from the lakes, as tributaries have their sources far away from their estuaries in the Solway Firth, the Eden arising at Eden Head more than seventy miles from the sea, in the very low mortality district of East Ward, Westmoreland. The River Eden traverses the high mortality districts of West Ward, Penrith, and Carlisle, the mean death-rate of which group amounted in 1861-1870 to 6·06, and in 1851-60 to 5·00; the elevated district of East Ward, whence the Eden has its source, to the north-west of those of the Ure and the Swale, having only a death-rate of 2·10 in 1851-60 and 3·74 in 1861-1870. Among females above thirty-five years the difference in the mortality from cancer between the elevated district containing the source of this river (East Ward) and that containing it when fully formed (Carlisle) was as 8·34 to 16·58 respectively. I could multiply instances all over England, but enough has been said, and I will therefore content myself now with merely naming the principal riparial groups along the fully formed rivers that seasonally flood the adjacent country. Besides the groups already described, the map shows others clustering around and along the Yorkshire rivers, especially the Swale, the Derwent, and the Hull. The Trent in the more sheltered but flooded parts of its course is surrounded by high mortality districts in Derbyshire and Leicestershire; those along the Severn and the Wye, the Stour of Dorsetshire, and the Avon of Wiltshire. It may be remarked here that the essentially chalk county of Hampshire is remarkably free from cancer; its rivers, the Test and the Itchen, have their origin in chalk hills, are characteristic rivers of the chalk, and possess all their remarkable peculiarities. All these groups have been fully described in my work[2] published in 1875, and therefore I need not now repeat those details which have been already so fully dealt with in a paper that is only intended to give an outline of the original investigation, whilst supplying information on the facts that have come to our knowledge during the last twenty years.

In my map for 1851-60 there are about twenty-two districts coloured of the *darkest blue*, indicating that during that period they had the *highest death-rates from cancer among females;* I append the list with the death-rates for 1861-70, by which it will be seen how persistent these high death-rates are:—

	1851-60.	1861-70.
Richmond (Surrey)	7·30	6·61
Pickering (Yorks.)	8·05	8·39
Shrewsbury	7·17	7·35
Stafford	7·47	6·81
Stratford-on-Avon	6·79	6·37
Downham	6·70	6·96
King's Lynn	7·09	9·15
Yarmouth	7·64	6·32
Wangford	6·74	8·15
Cambridge	7·38	8·09
Bury-St.-Edmunds	7·53	7·70
Witham	6·56	6·10
Tilbury	7·30	3·55
Marlborough	6·66	4·62
Reading	8·68	8·73
Droxford	6·87	5·73
Chichester	6·65	8·23
Ticehurst	6·73	5·50
Brighton	6·69	7·71
Romney Marsh	6·61	3·88
Plymton-St.-Mary	6·20	6·74
Plymouth	6·50	7·23
Mean at all ages	6·87	6·81
Mean above 35 years of age	19·82	19·97

It will be well now to give a list of the districts in which the highest mortality from cancer occurred amongst males during the two decennial periods at "all ages" and above thirty-five years of age:—

	All Ages.		Above 35 Years.	
	1851-60.	1861-70.	1851-60.	1861-70.
Thakeham	4·40	3·82	12·20	11·46
Ringwood	4·00	3·69	10·83	10·52
Wellingborough	3·70	4·25	11·88	13·15
Huntingdon	3·70	6·71	11·98	20·19
St. Ives	3·90	8·78	11·18	11·53
St. Neots	3·80	4·50	11·04	13·77
Cambridge	3·80	4·22	11·39	13·62
South Molton	3·70	4·00	11·08	11·86
Bristol	3·80	3·38	11·17	10·15
Shrewsbury	4·20	4·07	11·27	11·16
Uttoxeter	3·90	4·08	11·58	10·44
Nuneaton	3·80	4·79	11·18	11·57
Solihull	3·80	4·03	10·67	10·74
Reeth	3·70	3·77	9·78	13·15
West Ward	3·60	4·07	10·54	11·77
Machynlleth	4·00	4·70	10·87	13·05
Mean	3·86	4·21	11·25	13·16

Summary.

		1851-60.	Difference.
Highest mortality districts.	Males above 35 years	11·25	5·38
England and Wales.	Mean death-rate. Males above 35	5·87	
		1861-70.	
Highest mortality districts.	Males above 35 years	13·16	5·64
England and Wales		7·52	
		1851-60.	
Highest mortality districts.	Females above 35 years	19·82	6·84
England and Wales		12·98	
		1861-70.	
Highest mortality districts.	Females above 35 years	19·97	4·33
England and Wales		15·64	

2. That the groups of low mortality coloured in shades of red are to be found along the water-partings of the catchment basins of the principal rivers, and especially where the hardest and most elevated rocks form the subsoil, or the most absorbent, like the chalk and oolite; that all calcareous rocks are when elevated preventive of floods, and when they form the subsoil have a decided influence in correcting the evils arising from dead, dying, and decomposing vegetable matter. I append a list of sixteen of the lowest mortality districts coloured darkest red in my map for 1851-1860:—

	1851-1860.	1861-1870.		1851-1860.	1861-1870.
Uppingham	2·20	4·40	Bellingham	2·10	2·96
Southam	2·40	2·83	Weardale	0·90	2·91
Winchcombe	1·80	2·58	Settle	1·80	2·04
Kingsclere	2·10	4·99	Chorley	2·00	2·44
Farnborough	2·00	4·31	Corwen	2·20	3·72
Midhurst	2·10	4·32	Tregaron	2·30	1·40
Eastbourne	2·30	4·50	Llanelly	2·40	2·64
Hoo	2·30	4·19	Penzance	2·50	4·07
Means	2·15	4·07	Means	2·02	2·77

It will be seen that these rates increased during the decennial periods in greater proportion than in the highest

[2] The Geographical Distribution of Heart Disease, Cancer, and Phthisis. Folio. 1875.

mortality districts, but on this subject, as well as the decrease in the mortality from phthisis in these districts, and the contrast that cancer affords in its distribution to that of phthisis, I can only spare a passing remark.

(To be continued.)

TOBACCO AMBLYOPIA.

By A. ST. CLAIR BUXTON,
ASSISTANT SURGEON, WESTERN OPHTHALMIC HOSPITAL, LONDON.

E. L——, aged fifty-one, presented himself at one of the Ophthalmic Hospitals in London early in February, 1887. He complained of rapid loss of sight during eleven weeks, culminating at the time of his visit to the hospital in the condition described on his out-patient letter, which gives the following details:—

"Diagnosis: (?) Albuminuric retinitis. Vision with each eye=$\frac{1}{60}$. Cannot read any near types. Cannot see to write. Colour blindness for red. Says he could see perfectly eleven weeks ago. Appearance of fundus normal in both eyes, except a few minute white specks near macula in right eye. Ordered mist. ferri. aper."

This treatment was after a while changed to syrup ferri iodidi, two drachms three times a day, and subsequently five grains of iodide of potassium were added to each dose of the syrup. A note now appears on the letter to the effect that "he owns to having been a heavy drinker and smoker." No order, however, was given him to discontinue smoking, though alcohol was strictly forbidden. Apparently the diagnosis remained unchanged. He attended regularly once a week until April 1st, when, to use his own words, he "became sick of it," for his vision was steadily becoming worse. On Jan. 18th, 1888, rather more than a year after the onset of the amblyopia, he called on me in the faint hope that something might yet be done to mitigate his desperate condition. It was at this time that I had the opportunity of inspecting the hospital letter above mentioned. The ophthalmoscopic appearances described therein were in accordance with those I observed myself, except that I noticed a marked diminution in the calibre of the retinal arteries and a distension of the veins. The discs were normal, neither pale nor cupped, and the tension of the globes was also perfectly normal. But the vision had now declined to scarcely more than mere perception of light. By keratoscopy a small amount of hypermetropia was detected. There was nothing save the group of white specks to suggest retinitis, to my mind, as the cause of blindness. Nor did the closest questioning elicit any fact on which could possibly be based any suspicion that syphilis had played a part in the ocular tragedy. A careful examination revealed no trace of albumen in the urine, the specific gravity of which was 1022. I was forced to the conclusion that his case had been incorrectly diagnosed, and that he was in reality suffering from tobacco amblyopia. I mentioned the fact that stimulants had been entirely abandoned for a year, but smoking was still indulged in. So that, admitting my diagnosis to be correct, it was evident that tobacco alone was keeping up the trouble, whether originally produced by the combined action of that drug with alcohol or not.

In by far the greater number of cases of this kind that have come under my observation I have noticed a more or less well-marked diminution in the calibre of the arteries, and a corresponding increase in that of the veins. Indeed, I believe this to be a prominent feature, at some stage, in most cases of tobacco amblyopia. I am not aware that the primary seat of the lesion in the disease has yet been accurately determined, but I am inclined to think that the central (axial) portion of the optic nerves is the region first affected. 1. The peripheral portions of the field of vision are the last affected. 2. Lateral hemiopia is not met with, as far as I know. 3. Papillitis is noticed in some cases as an advanced symptom, hyperæmia of the disc being frequently seen in the early stages. 4. Atrophy of the disc is known to occur in cases of long standing. How are these facts to be accounted for? If we admit axial neuritis (resulting from a specific action of tobacco on this portion of the optic nerve), we seem to have an answer to the question. Inflammatory action would cause swelling, and perhaps exudation. The flow of blood in the arteries and the return current in the veins would be interfered with; hence the appearance of the vessels as seen with the ophthalmoscope. The stasis would in time react on the surrounding nerve fibres, first setting up irritation, and ultimately causing atrophy by pressure, nutrition being denied by reason of mechanical obstruction. For this reason I am of opinion that absorbents offer a better chance of rapidly successful treatment than any other class of drugs, tobacco, the *origo mali*, being of course strictly forbidden. In the case of E. L——the medicinal treatment was as follows: Liq. hydrarg. perchlor., ½ dr.; pot. iodidi, 12 gr.; aq. dest. ad 1 oz.; three times a day. Ext. nucis vom., ¼ gr.; ext. hyoscyam., 1 gr.: ft. pil.; one pill with each dose of mixture. This was taken regularly since Jan. 18th, 1888, and when I saw him, four weeks later, on Feb. 15th, his vision had improved very remarkably, as the following shows: With + 1 D, to correct hypermetropia, reads $\frac{6}{9}$; with + 4 D, for presbyopia and hypermetropia, reads No. 10 Jaeger at 16 in. He can also read handwriting, and is able to resume his duties, which he had been forced to abandon for over a year. Whether the simple abstinence from tobacco brought about the restoration of useful vision, or whether the mercury and iodide played any part in his recovery, I cannot of course determine with certainty; but I may say that the vessels have already resumed their natural proportions, and the colour-blindness is no longer marked. This is one case out of many of which I could give a very similar account.

A NEW METHOD OF APPLYING THE NASAL TRUSS FOR CORRECTING DEFORMITIES OF THE NOSE.

By W. J. WALSHAM, F.R.C.S.,
ASSISTANT SURGEON TO ST. BARTHOLOMEW'S HOSPITAL, AND SURGEON IN CHARGE OF THE ORTHOPÆDIC DEPARTMENT.

IN THE LANCET for Sept. 20th, 1884, I described and figured a nasal mask that I had employed for the purpose of gaining a fixed point wherefrom to bring pressure to bear upon the nose in cases of lateral deviation of that organ as the result of injury. The ordinary nose truss fastened by a head band, spectacle-frame apparatus, and similar contrivances, I had found liable to slip and shift their position; the mask, on the other hand, being accurately moulded to the face, answers admirably, inasmuch as in its use a fixed

point is obtained. But notwithstanding that the leather is perforated and lined with soft material, some patients complain that it is hot and uncomfortable, and retains the perspiration. Recently, therefore, I have employed a poroplastic felt cap in its stead. The felt, whilst rendered plastic in the ordinary way by the application of heat in the steam oven, is accurately moulded to the vault of the skull, and there kept in position till cool, when it retains the form of the head. Thus a close-fitting cap is obtained which will shift neither in a horizontal, vertical, or lateral direction, and in this respect secures all the advantages of the leather mask. At the same time, the porosity of the felt allows of

the free passage of the perspiration, and hence the cap does not give rise to any heat of the head. To its front the plate of the nose truss is secured by rivets. Any form of nose truss which may be thought advisable can in this way be applied, according to the nature of the deformity and the direction &c. in which it is desired to bring pressure to bear upon the nose. The form of truss shown in the accompanying woodcut was employed for correcting slight lateral deformity of the cartilages, the result of congenital dislocation of the anterior end of the septum from the superior maxillary crest. It consists of a spiral high-tempered spring, with a pressure pad fixed to its distal end. The spring is attached by a butterfly screw to the truss plate in such a manner that the amount of pressure can be accurately regulated. In this patient, a girl of nine years, the dislocated end of the septum, which formed an unsightly red prominence just within the nostril, was shaved away by a narrow-bladed scalpel, and the rest of the septum reposited forcibly in the middle line previously to the poroplastic cap and truss being applied.

Clinical Notes:

MEDICAL, SURGICAL, OBSTETRICAL, AND THERAPEUTICAL.

CASE OF A WORM IN THE STOMACH, CAUSING CHOLERAIC SYMPTOMS.

BY S. W. SUTTON, M.D., B.S. LOND.

ON the 8th of October last I received an urgent message from a neighbour, asking me to see a man who had been taken ill very suddenly. The patient was a Mussulman, aged twenty-eight. I found him lying under a tree in the compound, cold, and with no perceptible pulse at the wrist, complaining of cramps in his feet and of constant vomiting and diarrhœa. This was at 11 A.M. He said he had been quite well till early the same morning, when he had been seized with diarrhœa at about 6 A.M., that he had managed to walk to a hospital (about a mile distant), but failing to get any attention from anyone had turned back again, and had with the greatest difficulty reached the compound. In answer to my questions, he said the bowels had acted "many, many times," he could not say really how many. As there was no stool for me to see, I asked what it was like, and the reply was, "white, like water." There was no suppression of urine. I gave a dose of laudanum and dilute sulphuric acid, had hot-water bottles put to the feet, and a poultice of linseed and mustard applied to the pit of the stomach. Ice could not be procured. For diet, I ordered nothing but milk and brandy at first. A few hours later I saw him again; the diarrhœa had then ceased, and the pulse, very weak, was 85. At my morning visit on Oct. 9th I found the vomiting was persistent; he had had two loose watery stools in the night, but (contrary to my orders) nothing had been kept for me to see; the extremities were still cold, but he had no pains or cramps. I gave another dose of laudanum and dilute sulphuric acid, and ordered champagne and essence of meat. In the evening the vomiting ceased for a while. On the 10th I found that vomiting had returned at 10 P.M. the previous evening, and was still continuing. Pulse stronger; no diarrhœa; no cold of extremities; no pain. The man was evidently better, but was greatly distressed by such incessant vomiting. I ordered carbonate of soda in ten-grain doses, with tincture of ginger. At 11.30 A.M. I was asked to call again, as the man had just "vomited up something solid." This was an ascaris lumbricoides, seven inches and a half long. The next morning the man assured me he felt quite well; he certainly had a very different aspect. Vomiting had entirely ceased after the worm had been ejected. I administered a dose of santonin, and later some castor oil, but no more worms appeared on the scene.

Cholera was in Quetta at the time of the occurrence of this case, and I had myself been attending a case in the next compound only the day previously, which had proved fatal within twenty-four hours. These circumstances, taken in conjunction with the very sudden onset of uncontrollable vomiting and diarrhœa, with collapse and cramps, made me think at first that I had to deal with another case of cholera, though I was not unmindful that two facts were adverse to this diagnosis—viz., (1) that there was no suppression of urine; (2) that I had not myself seen the stools, and was therefore not sure of their character.

CASE OF ACUTE HYDROPS AMNII FOLLOWING SUDDEN DEATH OF A NEAR RELATIVE.

BY F. R. HUMPHREYS, L.R.C.P. LOND., M.R.C.S., &c.

MRS. S ——, aged thirty-three, in her ninth pregnancy, stated that she first felt the fœtal movements on Oct. 5th. On the same day her mother was seized with a stroke of apoplexy in her house, dying the next day. The patient was first seen on Oct. 15th. The abdomen was then greatly distended with fluid, which had been gradually collecting since the 5th, and was very tender. She now appeared to be in the ninth or tenth month of pregnancy. There were considerable dyspnœa, some palpitation, and a small weak pulse; there was also considerable lumbar pain. The abdomen measured twenty-one inches between the superior spines of the ilium, and was very tense. Dr. Galabin saw her with me on the 17th at 9 P.M., and agreed with the diagnosis of hydrops amnii, recognising the presence of twins. The membranes were at once ruptured, nine pints of fluid escaping. The uterus contracted well, perhaps in consequence of a dose of ergot given earlier in the day. The twins were born the following morning, before my arrival at 9 A.M. There was only one placenta, there being one chorion and two amnions. There was free direct communication between the veins of the two cords. The half of the placenta which belonged to the second fœtus had several apoplectic clots in it, and the fluid in the unbroken membranes was "very dark in colour, like blood."

CASE OF SCALD OF THE TONGUE AND FLOOR OF THE MOUTH BY THE BURSTING OF A ROAST CHESTNUT.

BY P. J. THOMSON, L.R.C.P. LOND., M.R.C.S.

ROSIE H——, aged seventeen, a pupil at a school of music, was brought to me on Jan. 5th of the present year with the following history. On the previous afternoon she took a fancy to some roast chestnuts and put some in the oven, without, however, making a slit in them. When she thought they were cooked, she took one and placed it between her teeth with the intention of biting off the husk. As soon as she closed her teeth upon it, it burst into her mouth. The front half of the tongue and the floor of the mouth beneath it was covered with a hot white pultaceous mass, which burnt her severely. The mass was very tenacious, and she found great difficulty in getting it away. Her tongue immediately began to swell, and reached to such a size that she had great trouble in keeping it within her mouth; she could hardly swallow or talk, and felt as if she would be suffocated. In looking into the mouth, the first thing that struck one was the tongue swollen to about double its usual size, and covered apparently with a thick layer of white fur. When the tongue was raised, on part of its under surface and the whole of the floor of the mouth beneath it the mucous membrane was seen to be swollen and quite white. The odour of the breath was most offensive. She was told to suck ice and wash out her mouth at frequent intervals with a saturated solution of boric acid. On Jan. 8th, the tongue was swollen, but less so than at the previous visit, and the patient still complained of a good deal of difficulty in swallowing. Beneath the tongue, along the prominence formed by the sublingual glands as far back as the molar teeth, was a long, superficial, horseshoe-shaped slough, a large portion of which was easily removed with forceps. The remaining ulcer was found to be healing well, On the 11th the ulcer on the under part of the tongue was quite superficial. The floor of the mouth was still covered along its central portion with a narrow slough. The girl complained of the movements of the tongue being much impaired. I advised her to sing and use her tongue as much as possible,

notwithstanding the pain. On Jan 14th, the movements of the organ were much freer, the ulcers were quite superficial and healing fast, and the patient had quite lost the fetid smell of the breath. Her condition was as follows on the 24th: Mouth quite well; frænum replaced by short, thick, fibrous cord; two long narrow cicatrices in floor of mouth over the sublingual glands; no inconvenience either in singing or talking.

Most people are well aware of the fact that unless chestnuts are nicked before being roasted they are very likely to burst, but the nature of the process does not appear to be so well known. The *corpus delicti* in this case was brought to me by the patient's mother. There was a rent through the husk and the outer portion of the nut itself, right into its centre, the contents of which had entirely disappeared. The heat had evidently hardened the outer part, while the moisture in the nut had been raised to a condition of steam and formed a sort of pultaceous boiling *magma* with the central portion. The slight pressure applied by the patient in trying to bite off the husk was sufficient to bring about the bursting of the nut, a result which would have happened spontaneously in a minute or two by the sole expansion of the steam.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas et morborum et dissectionum historias, tum aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

ST. BARTHOLOMEW'S HOSPITAL.

PYO-NEPHROSIS DUE TO OBSTRUCTION OF THE URETER BY A CALCULUS; OPERATION; DEATH FROM AMYLOID DISEASE; REMARKS.

(Under the care of Mr. HOWARD MARSH.)

CASES illustrative of renal surgery are always of interest, and there are several points about the following case, referred to by Mr. Marsh in his remarks, that make this one especially so.

Caroline H——, aged thirty, housewife, was admitted on July 22nd, 1886, under the care of Dr. Church, suffering from pleurisy and pain on the right side of the abdomen.

On admission, there were signs of pleuritic effusion on the right side; heart normal; much tenderness existed on the right side of the abdomen, from the costal margin to the iliac crest; undefined swelling; increased resistance. The urine contained nearly one-half pus; it was ammoniacal and albuminous; no blood. Legs slightly œdematous. Temperature elevated.

With rest in bed and poultices the pleurisy gradually cleared up, and the right side of the abdomen became much less tender, though the fulness and increased resistance remained the same. The amount of pus in the urine decreased from one-half to one-fourth. Evening temperature elevated; usually 102°. The patient continued to improve until Aug. 30th, when she had more pain, tenderness, and fulness in the right side of the abdomen; but there was less pus in the urine. On Sept. 1st, she was very much worse, and a distinct tumour could be felt in the right loin, acutely tender, of the size of a cocoanut. The urine again contained half pus. Temperature 103°; tongue furred; pulse and respiration rapid.

It was thought by Dr. Church advisable that an incision should be made into the swelling. This was accordingly done from behind by Mr. Marsh, and eight ounces of pus were evacuated; the cavity was washed out, and a drainage tube inserted. The operation was followed by decided improvement. The temperature fell to 100°, and the other febrile symptoms diminished in severity. There was a free discharge of pus from the loin, and all went on well until Sept. 7th, when the temperature began to rise, and the discharge became offensive, but the patient's appetite and general condition remained good until the 11th, when a rigor occurred, and nausea, vomiting, and anorexia appeared. The temperature rose to 106°. On examination a large accumulation of pus was found in the cavity in the loin, which was at once let out. Notwithstanding this, however, for the next fortnight the patient was in a critical condition, with all the signs and symptoms of pyæmia, from which it was thought she could not recover. She quickly regained her appetite, however, and was able to eat and digest large quantities of nutriment, and so acquired a considerable amount of strength. On Sept. 18th a watery discharge, with a urinous odour, was noticed coming from the sinus in the loin.

During the next six weeks the patient gradually improved and gained strength in spite of the fact that six large abscesses made their appearance one after another. Two were situated on each hip, one over the sacrum, and one over the left scapula. All except the last were opened, and after a plentiful discharge healed up. The last one so rapidly reached such an enormous size that it was thought safer to aspirate it, and on Nov. 3rd, thirty ounces of pus were drawn off; it quickly refilled, and was again aspirated on Nov. 16th, and this time thirty-eight ounces of pus were removed; but by Nov. 28th it was larger than ever, so a small incision was made into its most dependent part. Three pints of pus escaped. A piece of tissue was inserted to keep it open, and it was dressed with antiseptic gauze. All these abscesses were subcutaneous. The temperature, which had kept up to 103° at night, became normal after this abscess was opened and drained. The sinus in the loin continued to discharge large quantities of pus and watery fluid with urinous odour. Since Sept. 12th, the pus in the urine had only been very small in amount. The patient made rapid progress toward recovery after the last abscess closed, and by Dec. 4th was able to get up and walk a few steps. The local condition remained in just the same state. The watery discharge from the loin was so great as to cause much difficulty in keeping the patient dry.

On Dec. 16th the patient was put under the influence of an anæsthetic, and the sinus in the loin was laid freely open. On digital examination the finger passed into a smoothly lined cavity with several pouches, which was at first taken to be the kidney with its calyces; but on further examination the surface of an apparently healthy kidney was felt in front of this cavity. A drainage tube was inserted, and the wound dressed with carbolic gauze. The wound soon healed up again, leaving, as before, a sinus, from which a small amount of pus escaped, and a very large quantity of thin watery discharge with a strongly urinous odour. The patient continued to improve in general health, gaining flesh and weight. Evening temperature generally slightly above normal. The urine was, however, alkaline, albuminous, and loaded with pus.

On Jan. 31st a probe was introduced into the sinus, and it was thought that the cavity was certainly smaller than when last examined. General health good. Local condition the same. Urine unaltered.

The watery discharge was tested two or three times for urea, but none was found. The following tests were employed:—1. Boil diluted discharge with sodium phosphate and acetic acid, to throw down all albumen. Filter, and to filtrate add nitric acid, and examine for crystals. 2. Evaporate to dryness. Extract with absolute alcohol. Evaporate to dryness, and examine for crystals.

In general health the patient continued to improve steadily, but the sinus in the loin kept on discharging pus and a great deal of urinous fluid. About Feb. 22nd she changed for the worse. Puffiness of eyelids and slight general œdema were noticed, and patient became dull and heavy. In the course of a week great drowsiness, marked general œdema, and deficiency in quantity of urine excreted, ensued. Almost complete suppression of urine supervened, and she became comatose, and died on April 7th, 1887.

Necropsy.—There were four or five pints of serous fluid in the abdominal cavity. Liver much enlarged and amyloid. Spleen slightly enlarged and amyloid. Left kidney also slightly enlarged and amyloid. The right kidney was sacculated and distended to about twice its natural size. A sinus in the loin led into the pelvis of the kidney. Much of the renal substance was destroyed and absorbed; and in the pelvis and ureter was firmly wedged a calculus, which sent two branches up into the calyces for a very short distance. The ureter was completely occluded by the stone.

Remarks by Mr. MARSH.—There are, I think, three points in this case that qualify it for publication and remark. These are—(1) that although it was suspected that a stone was present, none could be found when the exploratory

operation was performed; (2) that the continuous discharge of urine from the loin, which was supposed at the time to be due to the defective healing of the wound made to evacuate the abscess, proved to depend on obstruction of the ureter by a calculus lodged in its pelvis; and (3) that although several tests were employed, no urea could be detected in the fluid which drained away so copiously from the wound in the loin. 1. That no stone was detected was, I believe, due chiefly to two circumstances. In the first place, the examination was somewhat limited, for the patient had recently been very ill and was still very weak, so that I was afraid of overtaxing her strength; and secondly, the kidney was so embedded in inflammatory exudation and surrounded by cicatricial tissue that it was very difficult to ascertain its exact relations, or to recognise and explore the pelvis or the ureter. It was, indeed, difficult even to be sure whether the cavity that was reached, and which was found to be crossed by septa mapping it out into loculi, was the interior of a dilated kidney, or merely the sac of a perinephritic abscess. This is a difficulty worthy of notice. I have experienced it on two former occasions, and other writers on the surgery of the kidney have alluded to it. I believe that the recesses of a perinephritic abscess may readily be mistaken for dilated calyces, so that the kidney itself is never reached. The best method of exploring the kidney for stone is still under discussion, but, so far as my own experience and observation go, I anticipate that the plan of direct examination by the hand passed into the abdomen through an incision in the middle line will come more frequently into use. In the present case, however, the weak condition of the patient deterred me from adopting it, and I regret that I did not read aright at the time the meaning of the escape of the urinous fluid from the loin. As the search for a stone had been attended with a negative result, I thought that the case was one in which, as the interior of the kidney was still suppurating and discharging through the opening originally made to evacuate the abscess, the urine escaped by gravity along the same passage. The case shows that the persistent and copious outflow of urine through a sinus in the loin may not improbably depend on the presence of a calculus in the ureter, and points to the advisability of a full examination in this direction.

EVELINA HOSPITAL FOR SICK CHILDREN.

INTUSSUSCEPTION; REDUCTION BY LUND'S APPARATUS; RECOVERY; REMARKS.

(Under the care of Dr. JAMES GOODHART.)

FOR the following account we are indebted to Mr. G. A. Carpenter, resident medical officer.

G. F. B——, aged eight months, was brought to the hospital on Dec. 11th, at noon, with the following history. He was quite well up to Dec. 9th, midday, when he had convulsions. During that night he passed blood in a motion; the blood was bright-red. Before morning the child had five or six passages of blood only, of the same description; there was no mucus admixed, nor was the blood frothy. Since then there had been no evacuation of the bowels. On the night of Dec. 10th he vomited twice; the vomit was yellow-coloured, and smelt like fæcal matter.

On admission, the child was pale, looked pinched about the face, but apparently did not suffer any pain. On examination of the abdomen, there was a tumour over the site of the descending colon, near its junction with the transverse colon, of the diameter of a sausage, and two to three inches in length. The tumour was freely movable, and dull to percussion. No impression could be made upon it with the examining finger. Per rectum, nothing abnormal could be felt, and there was no trace of fæcal matter on withdrawing the finger. Some mucus came away soon after the examination, and in about fifteen minutes some dull-red blood mixed with mucus was passed. With the exception of the tumour in the abdominal cavity, the abdomen was healthy in appearance and to palpation. All organs were healthy, but over the right base there was deficient resonance, and a few fine crackles were to be heard. Ordered one grain of salicylate of soda and a teaspoonful of lime-water every hour, linseed poultices to the abdomen, milk only, and brandy (half an ounce). The child was quite quiet up to 6·15 P.M., when he screamed as if in pain. The diaper was found to contain moist fæcal matter, the colour of yellow ochre, which was not in the least blood-stained, nor was there any admixture of mucus. The motion was about two ounces in bulk. The abdomen was examined immediately after the evacuation previously mentioned. The tumour was then just distinguishable, of the diameter of the little finger, and from an inch and a half to two inches in length. The abdominal walls were quite flaccid, and manipulation did not give the slightest pain. At 10.30 P.M. the child became pale; the lips were blue, and the face and extremities cold. The pulse was fair, and the heart sounds loud, the second pulmonary being very sharp. He was very sick twice, which was followed by slight retching, continuing for half an hour. There was nothing characteristic about the vomit. Hot blankets and hot bottles were applied and twenty drops of brandy given. The nurse's report for the day was to the effect that he seemed very comfortable, was not at all fretful, but was sick twice. At 12 noon the pulse was 116, respiration 36, and temperature 97·8°; at 12 midnight, pulse 110, respiration 36, and temperature 98·4°.

Dec. 12th.—The child did not sleep all night, was very restless, and in pain at times. Every now and again the hands, face, and feet became very cold and clammy, and he was sick twice, in addition to that previously reported. One loose motion, slight in quantity, and of a yellow-ochre colour, together with some blood-stained mucus, were passed. The temperature at 3 A.M. was 99·6°, the highest recorded since admission. This morning the descending colon was felt to be about the same size as on admission. The abdomen, if anything, was a little distended. Examination was again made per rectum. The left and right iliac fossæ were explored, but nothing abnormal was detected. By bimanual manipulation the tumour could just be reached with the tip of the index finger. It gave the sensation of a sausage-like body covered with mucous membrane projecting into the lumen of the gut, and was not altogether unlike the feeling experienced on the examination of the cervix of the pregnant uterus in a late stage. In addition, one could detect a depression in the centre of the projecting body, feeling like the os, which made the impression more realistic. The surrounding gut was felt to encircle the projecting body, but was quite distinct from it, and as far as the index finger reached had no connexion with it. During the examination the finger became unpleasantly warm, and on withdrawing it about half an ounce of blood-stained mucus came away, but no fæcal matter. During the day he seemed a little brighter, but the face and extremities became cold every now and again. He lay very quiet, did not appear to be in much pain, but was very thirsty. He was slightly sick four times after taking milk.—4.30 P.M.: This evening the child was brighter about the face, and had been sleeping. The abdomen was perfectly flaccid, and manipulation was not in the least resented. He was placed under chloroform, and two pints of warm boracic acid lotion (five grains to the ounce) were injected per rectum by Lund's apparatus. The reduction apparently took place at the first attempt, as no trace of the tumour could be discovered on subsequent examination; however, a second quantity was forced into the lower bowel after the evacuation of the first. The distension of the colon by the water extended to the hepatic flexure. The ascending colon and cæcum apparently did not fill, as that part of the abdomen remained undistended, and, in consequence, there was some little doubt as to whether the intussusception had been entirely reduced. The fluid which returned contained a little mucus. Temperature, 9 A.M., 99°; at 9 P.M., 99·2°.

13th.—He slept quietly all night. The face was very flushed at times, and the skin hot and dry. At 6 A.M. he became rather fretful, when his temperature rose to 100·4°. During the night he had five slight diarrhœa motions. The specimen saved was pultaceous, probably an ounce and a half or two ounces in measure, of a light-green colour, and free from blood and mucus. This morning the abdomen was a trifle more rigid than the previous night, and the child was fretful, apparently from hunger, consequently it was impossible to make an examination under favourable circumstances. Nothing abnormal could be detected, and when the child became quiet the abdomen gave a healthy feel. All day he was much brighter and took his food well. The face became very flushed occasionally. He slept a great deal during the day. Temperature, 9 A.M., 97·8°; 12 noon, 99°; and 9 P.M., 96·6°.

18th.—The child made uninterrupted progress since the note of Dec. 13th. On an average he passed from five to six motions in the twenty-four hours, some very slight and loose, and others formed. The pulse varied between 132 and 82 beats per minute, the respiration between 44 and 20 per minute, and the temperature was chiefly subnormal, but on one occasion it rose to 99°.

Jan. 24th.—The child is quite well up to the present date. A few days after leaving hospital he passed per anum a china doll's foot, which was about one-sixth of an inch in length and the same in height. The parents thought he must have swallowed it during his stay in the hospital, as they said they had no such plaything at home; but the corresponding portion was not found in the hospital.

Remarks by Mr. G. A. CARPENTER.—The case is not altogether without interest. It is not easy to decide whether the convulsions are to be regarded in the light of cause or effect. Certain it is that it is not an uncommon thing to find post-mortem intussusceptions in patients who have died convulsed, such as those suffering from tubercular meningitis, where, even during life, more than usually active movements of the gut may be noticed during the convulsive attacks, and it is quite open to the interpretation that the lesion might have been caused in the same way. Another point is the passage of fæces during the time the intussusception lasted. On one occasion the fæces were quite natural in character, and the tumour decreased greatly in size after the evacuation, so that the greater portion of its bulk was evidently due to the retardation of the fæcal contents of the bowel immediately above the injury. When the size of the orifice of the intussuscepted portion is taken into account, which was a mere dimple, it seems difficult to imagine how any other than the most fluid contents could have passed; yet during the whole time fæces more or less healthy were evacuated. Again, the position of the intussusception was unusual. The right iliac fossa was carefully explored, and nothing abnormal was detected in this region, which excludes the assumption that the intussuscepted portion was the small intestine. The ascending and transverse colons were healthy, and the lesion was evidently localised to the position described. With regard to the passage of the doll's foot, it is open to doubt whether this was the origin of the mishap, although, of course, it is quite possible that this might have caused it by its irritation. If it were swallowed at the hospital—and the parents deny that it could have occurred at home, as the child had no such toy—the accident must have happened during the last two or three days of the child's residence there, as he was too unwell before then to take notice of any playthings, and, consequently, after the occurrence of the intussusception. The application of Lund's apparatus was most simple, and gave every satisfaction. The distension made by it was considerable, the abdomen being rendered both full and tense, and a considerable amount of force was required to introduce the last few ounces. The hand was kept on the abdomen throughout, so as to diminish the risk of over-distension.

Medical Societies.

PATHOLOGICAL SOCIETY OF LONDON.

Parasitic Fœtus.—Congenital Lipoma.—Parotid Tumour.—Pulmonary Endarteritis.—Complex Hermaphroditism.—Papilloma of Fallopian Tubes.

AN ordinary meeting of this Society was held on Feb. 21st, Sir James Paget, F.R.S., in the chair.

A report of Mr. BLAND SUTTON and Mr. SHATTOCK on a case of Parasitic Fœtus was read. It occurred in a boy seventeen years of age. There was no family history of malformation. He had suffered from small-pox when a child, which had likewise infected the parasite. The latter, which was attached at the umbilicus, consisted of two divisions, an upper and a lower. The upper consisted of the upper limbs, the lower of the pelvis and lower extremities. Intestinal gurgling was obvious in the pedicle leading to the lower segment. No testicles could be felt, there was no spontaneous movement, no heart sounds could be heard, and no pulse was palpable. It passed urine involuntarily, perspired simultaneously with the autosite, possessed pubic hair, and the penis was capable of feeble independent erection. Its temperature was below 95° F. Other examples of similar malformation were referred to, and the case was regarded as one in which an original single ovum had undergone cleavage of the germinal area, the resulting segments growing at a different rate. In reply to the President, Mr. Shattock said that there was no evidence of muscular movement in the limbs of the parasite.

Mr. D'ARCY POWER exhibited a specimen of a comparatively rare form of Congenital Fatty Tumour, to which the name "periosteal lipoma" has been applied. The patient, a boy aged nine, under the care of Mr. Thomas Smith, presented a soft, painless, elastic swelling, occupying the outer aspect of the upper third of the left thigh. The skin was freely movable, and the superficial veins were distended. The tumour was incised and removed; it was firmly attached to the periosteum just below the lower trochanter; it weighed fifteen ounces, and measured six inches by five. It was only partially encapsuled, and consisted of several lobes held together by areolar tissue. The growth was very firm, and, on microscopical examination, was found to consist of collections of fat cells with thick intervening bundles of connective tissue. Mr. Power referred to Mr. Butlin's opinion that such growths commence as fibrous or fibro-cellular tumours, the formation of fat being a late change, and suggested that there was no special reason why lipomata should not spring from the periosteum, since they were connective-tissue growths, which might commence as localised proliferations of cells, which rapidly became infiltrated with fat. He also commented on the absence of a capsule over the greater part of the growth, and stated that, whereas the fat in the encapsulated portion was mingled with so much fibrous tissue that the growth might in this part be regarded as a fibro-lipoma, in the diffuse portion it was simple fatty tissue.

Mr. T. F. CHAVASSE read notes of a case of Parotid Tumour in a woman, which was first noticed when she was fifteen years of age as a small swelling under the right ear. An attempt was made to remove it eight years ago, but it failed on account of hæmorrhage; the wound healed, but since then it had grown rapidly. When recently excised it was found to weigh 1 lb. 4 oz., and contained many nodules of hyaline cartilage, surrounded by gelatinous tissue. Microscopically, it was a combination of enchondroma with fibro-adenoma, having spindle-shaped nuclei and indistinct acini; in some places it approached sarcoma in structure. The cartilage was either hyaline or fibrillated. He thought the best explanation of the cause of the tumour was the developmental one, that certain cells destined for the ear got stranded in the parotid, and there remained quiescent till puberty, when, starting into growth, the cartilaginous nodules by irritation excited an adenomatous new formation. He looked upon the development of sarcomatous tissue as a degenerative step.—Mr. STEPHEN PAGET referred to Mr. Jacobson's paper in the Guy's Hospital Reports on mixed parotid tumours containing hyaline, fibrous, and reticular cartilage and striped muscle fibre. He thought it difficult to account for the presence of these multifarious elements by any theory of degeneration. The majority of these tumours have occurred in women.

Dr. G. F. CROOKE showed specimens from a case of Pulmonary Endarteritis. The patient had complained of shortness of breath, pains in the left side and back, pain and fulness in the abdomen, and swelling of the legs. At the necropsy there were found stenosis of the mitral valve, probably congenital, hypertrophy of the left auricle, great hypertrophy of the right ventricle, and dilatation of the pulmonary artery. The smaller branches of the latter vessel showed great thickening of the intima, which was roughened and nodose, and was undergoing fatty changes. The smallest twigs showed marked obliterative endarteritis, and contained small adherent thrombi. There was no systemic atheroma.—Dr. WILKS said that cases of ectasis of the pulmonary artery were more common than used to be considered the case. He had never seen much disease of the pulmonary artery without aortic atheroma. Mitral stenosis occurring in young children caused frequently a general stunting of growth.

Mr. STONHAM exhibited a case of Complex or Vertical Hermaphroditism. The child had been operated upon for hernia, and the contents of the sac were returned to the abdomen; the wound suppurated and the patient died. The external organs were of the male type, with undescended testes; the bladder was normal in size and shape, and its neck was surrounded by a prostate. Behind was a vagina

and uterus, the latter being devoid of a projecting external os, but having a distinct cervix. On each side of the uterus were testes, and below them Fallopian tubes and epididymis. The family history was interesting, one sister having a bifid nipple, and two brothers each a well-formed penis and scrotum, but no testes.—Mr. SUTTON thought the case proved that the prostate was homologous with the cervix uteri.—Mr. JONATHAN HUTCHINSON, jun., opposed this view.

Mr. ALBAN DORAN showed specimens of Papilloma of both Fallopian Tubes and Ovaries. They were removed from a woman aged thirty-one, married twelve years, and sterile. Seven years ago she had a severe attack of pelvic inflammation; a tumour was noticed, but it disappeared. Twelve months ago it was again discovered. Dr. Bantock performed an exploratory operation. Two tumours were found and removed; they proved to be cystic ovaries united to cystic tubes. Both tubes and ovaries bore abundant papillomatous growths. There was no free fluid in the peritoneum, and no papillomata were diffused beyond the cysts. The patient recovered. She had menstruated till within a month of the operation in December, 1887, although both tubes and ovaries must for long have been degenerate. The disease appeared to represent a form of atrophy due to old chronic inflammation, resembling in this respect the most frequent form of tubo-ovarian cyst. Only two other cases where papilloma of the tube constituted a distinct disease had been described. In the first, the tube was unobstructed at its ostium, and the peritoneum was filled with fluid; in the second, the tube was closed, and there was no peritoneal effusion. The same conditions existed in the present case, which differed from the others in being bilateral and involving the ovaries.—Dr. HORROCKS inquired whether there was any history of gonorrhœa or syphilis.—Mr. DORAN said that in the first case infection was impossible; in the others it was possible, but highly improbable.

The following card specimens were shown:—

Mr. STONHAM: Tumours of Bone—(1) Spindle-celled Sarcoma of Femur; (2) Cystic Sarcoma of Femur; (3) Cystic Myeloid Sarcoma of Femur and Tibia; (4) Spindle-celled Sarcoma of Tibia; (5) Spindle-celled Sarcoma of Humerus with fracture.

Mr. CHAVASSE: Peculiar Vesical Calculus.

Mr. BRUCE-CLARKE: Stone in Retro-prostatic Pouch.

Mr. WALSHAM: Volvulus of Cæcum and Lower Portion of Ileum.

Mr. SHATTOCK: Dermoid Cyst from the Third Branchial Cleft.

Mr. J. C. LUNN: Spinal Meningitis following Disease of the Ear.

Dr. LEDIARD: Enchondroma of the Fingers.

The PRESIDENT announced that the Council have decided to set apart three evenings in the early part of next session for the discussion of the Pathological Changes produced by Chronic Alcoholism, and the exhibition of specimens relating thereto. Dr. Payne has been invited to open the discussion.

MEDICAL SOCIETY OF LONDON.

The Abortive Treatment of Syphilis.

AN ordinary meeting of this Society was held on Feb. 20th. Dr. J. Hughlings Jackson, F.R.S., President, in the chair.

Mr. JONATHAN HUTCHINSON, F.R.S., read a paper on the Abortive Treatment of Syphilis, of which the following is an abstract. The paper commenced by a general statement that the author's recent experience had been that when mercurial treatment was begun early for the indurated chancre, no secondary symptoms followed. He was in the habit of assuring patients that if they would persevere with the mercury they would escape the occurrence of sore throat and eruption. Year by year his confidence in the practicability of suppressing the secondary stage increased. By the term "abortive treatment" he meant a treatment which aimed at this result. It was not to be considered as synonymous with curative in its strongest sense, and it certainly did not imply annihilation of the malady. It was quite possible that after a successful abortive treatment and an entire omission of all secondary phenomena the patient might yet have tertiary symptoms. Tertiary symptoms must, he thought, be considered apart, for there was a sense in which it might be contended they were not syphilis. He defined the stages of the disease as being the primary before the blood became contagious, the secondary whilst it was contagious, and the tertiary after it had ceased to be so. Probably a treatment begun only after definite symptoms, such as induration of the chancre, had shown themselves, was begun too late to prevent that contamination of all the tissues from which, after a long interval, tertiary phenomena might result. The author defended the terms "specific" and "antidote" in reference to the use of mercury in syphilis. He believed that the mineral was antagonistic to the life of the microbe, which in all probability existed as the cause. The problem for the practical surgeon was how best to use mercury so as to secure the death of the microbe. He admitted that certain facts seemed to prove remarkable tenacity of life in the parasite. Thus, for instance, mercury might be given for six months, and all symptoms of the secondary stage during that period be suppressed; and then, if the drug were suspended in the course of a few weeks, a modified rash might show itself. The facts recorded by the older surgeons (especially by Mr. Judd) were quoted in proof that short courses attended by ptyalism, such as used to be employed, did not procure the abortion of the secondary stage. It was contended that the investigation on this point must begin anew now that we had adopted the practice of giving small doses over very long periods and avoiding salivation. The author's practice had for long been of this latter kind, and had consisted in the administration of single-grain doses of grey powder, three, four, five, or six times a day, according to the case. The following facts were appealed to in proof of the antidotal power of mercury in reference to syphilis: that it always caused the induration of a hard chancre to melt away; that it always caused the secondary eruptions to fade; and that it always modified greatly, if it did not wholly prevent, the evolution of the secondary stage when given before it commenced. To prevent the tertiary stage, it might be necessary to use the antidote before there was an infection of the blood—that is, probably, before the induration of the sore and adjacent glands. This consideration introduced the question as to the stage at which mercury ought to be prescribed. The author's practice had hitherto been never to give it until, by the induration of the sore, he felt sure of the diagnosis, and never to wait longer. It had, however, often occurred to him that it was perhaps not for the patient's benefit to wait even so long as that, but, on the contrary, having regard to the serious import of syphilis and the comparatively innocent nature of the drug, it might be well to give it in all suspicious sores. He was aware that much might be said on both sides in reference to this proposal, and it would only be in a minority of cases, where the patients were well informed as to the nature of his risks and willing to persevere for a long time, that it would be feasible. He wished, however, to express very strongly his belief that the efficacy of mercury as an antidote was much influenced by the period at which it was commenced, as well as by the length of time during which it was taken. Mr. Hutchinson concluded his paper by disclaiming strongly any wish to claim for himself or his own mode of treatment any superior efficacy over that adopted by others. He believed that most were at the present day attempting abortive methods, although hesitating to adopt that name. He wished to show that such hesitation was groundless, and that really the abortion of the disease—i.e., the suppression of its natural stages—was what we ought definitely to aim at. He believed that future investigations as to the efficacy of treatment would be facilitated by the use of outspoken terms such as those suggested. His paper had been written, he said, chiefly in order to elicit discussion, and he submitted the following questions to the Society:—1. What plan of treatment is most successful in suppressing the febrile or secondary stage of syphilis? 2. Does the suppressal, complete or partial, of this stage tend to prevent what are called "reminders"—i.e., those minor, and for the most part local, symptoms which often intervene between the febrile stage and the tertiary phenomena? 3. Are those in whom the febrile stage has been aborted by artificial means more or less liable than others to tertiary phenomena? 4. Is it desirable to attempt, by anticipatory treatment (mercurial), to abort the phenomena of the primary stage? 5. If it be possible by the anticipatory treatment of undeveloped chancres to prevent the primary phenomena, what will the influence of such suppressal be on the further course of the disease?

Mr. J. A. BLOXAM looked upon symmetrically enlarged glands in the groins, neck, and elbow as good evidence of a

chancre being infecting. He did not think a six months' course of mercury long enough to cure the disease. Since 1884 he had administered the drug entirely by subcutaneous injection. He thought almost every case presented secondary symptoms, even though they might be extremely slight.—Mr. BERNARD PITTS spoke of the success of treatment by extremely small doses of mercury.—A Fellow, who said he was the first to recommend excision of chancres, was convinced that secondary symptoms followed very rarely after that method.—Mr. HENRY DE MÉRIC had never seen a case abort in which mercury was administered from the beginning, though that drug had the power of preventing undue severity of the tertiary symptoms.—Mr. MALCOLM MORRIS never commenced mercury before the secondary symptoms were well pronounced.—Mr. HUTCHINSON, in reply, said that though many non-indurated sores were specific, yet very few indurated sores (not having been irritated) were non-syphilitic. A sore on the edge of the prepuce should be excised, whether syphilitic or not, but if it were already indurated probably nothing would be gained by excision. He opposed the administration of quinine with mercury, but frequently gave mercury and iron where the subjects were debilitated.

ANATOMICAL SOCIETY OF GREAT BRITAIN AND IRELAND.

A MEETING of this Society was held at King's College on the 8th inst., the President, Professor Humphry, F.R.S., in the chair.

Mr. MAYO COLLIER read a paper on the Functions of the Sinuses of Valsalva and Auricular Appendices, with some remarks upon the Mechanism of the Heart and Pulse. The paper began with a discussion of current views of the formation and action of the sinuses of Valsalva. These pouches were not pathological formations, but were essential to the action of the heart. Their closure was not sudden, but gradual, and the second sound of the heart was due to sudden distension of the aorta. The force of the ventricular contraction was expended in distending the aorta rather than in propelling the main column of the blood. The auricular appendix was the part of the auricle which forcibly contracted and propelled the blood into the ventricle during its diastole. The current views as to the flapping of the valves of the heart were next refuted, and it was maintained that the first sound of the heart's beat was in no way caused by the closure of the valves. The pulse was afterwards spoken of, and the dicrotic wave was considered not to be due to a back wave, but to other causes.

Mr. J. BLAND SUTTON showed specimens of the ossification of the superior maxilla, superior maxilla, and malar bones to illustrate his paper on the Morphology of the Skull. There was no discussion.

Professor CUNNINGHAM then showed and explained a series of models which illustrated Cranio-cerebral Topography. The series consisted of plaster casts made before and after the removal of the skull cap, and comprised specimens of five, eleven, twelve, and fifteen years, and of adult male and female. The suture lines had been left, and the convolutions placed in relation to them.

Professor CUNNINGHAM next read a paper on the Musculus Sternalis. After reviewing the literature, the results of his own dissections were given, and he maintained that the muscle was not a part of the panniculus carnosus, but a downward dislocated portion of the pectoralis major. This association was chiefly based upon its nerve supply, which was exceedingly long and came from the anterior thoracic nerves, and upon the fact that the anterior branches of the intercostal nerves were recurrent round the inner margin of the sternalis muscle. — Professor HUMPHRY considered the existence of the sternalis due to incomplete segmentation of the great muscular sheet.—Professor MACALISTER discussed the question of the origin of the sternalis, and thought too much stress had been laid upon the last point. The muscle was present in three cases out of 115, but this was a low average. He confirmed Professor Cunningham's observation that the muscle was absent in other mammals.—Professor THANE was inclined to agree with the author of the paper. He discussed the question whether the muscle was vestigial or developing, and, in the latter case, as Professor Cunningham had remarked devoted to costal respiration.

Professor CUNNINGHAM read a paper by Dr. St. John Brooks on the Morphology of the Muscles on the Extensor Aspect of the Middle and Distal Segments of the Limbs. The paper showed that (1) the extensor minimi digiti was originally the fifth belly of a short extensor; (2) the anconeus belongs more properly to the extensor carpi ulnaris than to the triceps; (3) the occasional extensor brevis digitorum manus in man is not homologous with the extensor brevis digitorum pedis, but to the occasional deeper slips of that muscle. Finally, the nerve to the anconeus is homologous to the branch of the anterior crural, which sometimes supplies the tibialis anticus.

Mr. SUTTON then read his paper on Vestigial Muscles, which, he said, viewed the subject of Dr. Brooks' communication from an entirely different standpoint. Man, in common with the quadrumana, originally had a deep as well as a superficial set of extensors for the fingers. The deep set originally arose from the external condyle of the humerus and adjacent olecranon; gradually they migrated down the ulna. As they descended they carried the posterior interosseous nerve with them. By degrees the middle slips regressed into fibrous tissue, and their nerve became embedded in their remains on the back of the carpus. Gimbernat's ligament and the triangular fascia were then argued to represent the remains of a ligament which binds the epi-pubis to the ilio-pectineal line in the marsupials, and the ilio-femoral ligament was said to represent the gluteus quartus.

The following specimens were also shown:—Professor Thane: Obliteration of the Cœliac Axis; Collateral Circulation established through the Pancreatico-duodenal Arteries. Professor Curnow: Inter-parietal Bone; Double Arch of Aorta, enclosing Trachea and Œsophagus; Constricted Arch of Aorta, with enlarged Anastomotic Branches. Mr. Kenny: Abnormal relation of Phrenic Nerve to the Subclavian Vessels.

WEST LONDON MEDICO-CHIRURGICAL SOCIETY.

A MEETING of this Society was held on the 3rd inst., Mr. C. B. Keetley, President, in the chair.

Mr. HURRY FENWICK exhibited an Electric Apparatus for Illuminating the bladder.

Dr. HERRINGHAM showed a patient with Peripheral Neuritis—viz, localised paralysis with anæsthesia,—which is yielding to galvanic treatment.

Dr. PARAMORE read a paper on Insomnia, in which he discussed the various causes and classified the varieties.—The PRESIDENT remarked on the advantages of fresh air and regularity of habits in sleeplessness.—Dr. POPE recommended urethane in cases where insomnia is caused by a succession of thoughts, and in cardiac cases.—Dr. PARAMORE in his reply, deprecated the indiscriminate use of drugs in insomnia.

Mr. J. HUTCHINSON, jun., read a paper on Syphilitic Disease of the Liver and other organs. He remarked that gummata in the viscera were often overlooked in life. The smaller miliary deposits often produce effects: diffuse hepatitis, ascitis, &c.; a vascular turgescence of the internal organs, not infrequent in secondary syphilis, partly causing perhaps the pallor and jaundice often observed. Several cases were brought forward in illustration, and some interesting specimens—a gumma in the knee joint, and a syphilitic kidney—were shown. He considered that the secondary changes were often the precursors of tertiary deposits.

Mr. H. P. DUNN exhibited a specimen of Gumma of the Liver, in which no syphilitic disease had been suspected during life.—Mr. MARMADUKE SHEILD had seen similar cases with enlargement of liver in secondary syphilis. Gummata in organs have often been confounded with actinomycosis and other deposits, even in museums. He endorsed Mr. Hutchinson's remark as to the unreliability of patients' statements regarding syphilis.—Dr. OWLES doubted whether the fact of iodide and mercury doing good in a case was sufficient evidence of syphilis, for these drugs may destroy the micro-organisms of other diseases.—Dr. CLIPPINGDALE asked whether these drugs are really curers of syphilis, and not the accompanying hygienic treatment.—Dr. PARAMORE and the PRESIDENT spoke on the subject, and Mr. HUTCHINSON replied.

The Society then adjourned.

Reviews and Notices of Books.

A Theoretical and Practical Treatise on Astigmatism. By SWAN M. BURNETT, M.D., Professor of Ophthalmology and Otology in the University of Georgetown, Washington. With 59 Diagrams and Illustrations. London: Baillière, Tindall, and Cox. 1887.

THIS work is a monograph on an interesting subject, and is a striking example of the sub-division of work and knowledge that is constantly proceeding when any department is carefully studied. A few years only have elapsed since half a dozen trial glasses in frames constituted the whole stock-in-trade of many opticians; whilst the ophthalmic surgeon scarcely troubled himself to do more than to place before the patient, if young, a concave, if old, a convex, glass, and was perfectly satisfied when he said that his vision was improved by this or that lens. Gradually, after the appearance of Donders' treatise, the nature of the defects of vision proceeding from errors of refraction became more and more carefully investigated. Chapters on this subject were added to every general treatise on diseases of the eye, and the mode of testing and the proper glasses to be ordered for ordinary cases of hypermetropia and myopia became generally known. Soon, however, it was found that a further refinement was possible, and that in some cases great improvement could be obtained by the correction of a difference of refractive power in different meridians by means of appropriate cylindrical glasses. Instruments and methods of examination of this defect, which was named astigmatism, with the special object in view of determining its degree in any case, quickly followed the recognition of its importance as a factor in cases of impaired vision, and now we have in Dr. Swan Burnett's work a treatise entirely devoted to it, and containing a bibliography giving the names of numerous books, memoirs, and pamphlets especially engaged in its elucidation.

Dr. Swan Burnett gives two short but good introductory chapters on the fundamental laws of optics, especially dealing with refraction by ellipsis, spheroids, and ellipsoids. He gives a *résumé* of Harkness's observations on the precise outline of the cornea, which is accompanied by an instructive and original illustration. The simpler methods of determining astigmatism are then described, and cases given of an easy as well as of a difficult nature. He recommends, very properly, that the examination of astigmatic cases should always begin with convex glasses, and that if possible the correction should be made with these in preference to concave glasses. As might be expected, very full accounts are given of the various methods of examination that have recently come into general use—as by optometers; by skiascopy, or the shadow test, which we regard as the most satisfactory, after accommodation has been set at rest with atropine; and by keratoscopy. A chapter is devoted to keratoconus, and its relief by glasses. An excellent biographical table follows each chapter. We would suggest to Dr. Burnett that in future editions the old inch numeration should be given up, and replaced throughout by the diopter: the introduction of both systems is confusing. In conclusion, we may say that the work is a valuable contribution to ophthalmological literature, and that Dr. Burnett has treated a difficult subject in a very intelligent and satisfactory manner.

OUR LIBRARY TABLE.

Transactions of the Academy of Medicine in Ireland. Vol. 5. Dublin: Fannin and Co. 1887.—The subjects treated in the fifth volume are numerous and interesting, but want of space forbids our entering very largely into details. In the Medical Section Dr. Foot has an interesting case of Narcolepsy and some clinical reports; Dr. C. Nixon an example of Myxœdema; Dr. M. Boyd some notes on the Mineral Springs of Auvergne; and Dr. C. H. Robinson a case of Chronic Interstitial Nephritis, where evidences of cardiac hypertrophy, followed by albuminuric retinitis, epistaxis, and cerebral hæmorrhage, were present, yet albumen was only detected in the urine on one occasion, and then the merest trace. In the Surgical and Pathological Sections there are some contributions of great merit, notably on Nephro-lithotomy, by Mr. Kendal Franks; Conservative Surgery of the Foot, and Trephining in Epilepsy, by Mr. Wheeler; Trephining for Disease of the Ear, by Mr. Fitzgibbon; an excellent paper on Resection of the Pylorus, by Mr. McArdle; some interesting cases of Œsophagotomy, by Mr. Barton; Colotomy, by Mr. Thomson; and Various Fractures, by Mr. E. H. Bennett. Professor Hamilton details an interesting case of Spindle-celled Sarcoma, where nodules were found disseminated in the liver, pancreas, intestines, lungs and heart, death taking place a fortnight after extirpation of a tumour from the axilla. Messrs. Story, Benson, Swanzy, and others have also contributed papers which will repay perusal.

General Index to the Transactions of the Pathological Society of London. London: Smith, Elder, and Co. 1887.—The present volume comprises a general index to the communications made to the Pathological Society of London during the twelve years 1875-1886, and contained within vols. xxvi. and xxxvii. inclusive. It is the third volume of its kind, and has been compiled by the resident librarians, Mr. J. B. Bailey and the late Mr. Wheatley. The previous volumes were the work of members of the Society—the first by Mr. Timothy Holmes, and the second by Dr. Peacock. The value of these volumes it is difficult to over-estimate.

Archives de Neurologie. No. 43.—The first number of the current year contains two contributions on Neural Pathology, one by Babinski on a peculiar deformity of the trunk caused by sciatica, and the other by Bloeg on an affection characterised by astasia and abasia, which terms the author employs to designate a morbid state in which respectively the erect posture and normal gait are impossible, whilst the sensation, muscular force, and coördination of other movements of the legs are sound and intact. Paul Raymond contributes a paper on Ephidroses of the Face; and Bourneville and Bricon a fourth contribution on Procursive Epilepsy. Gilles de la Tourette writes a critical review on Attacks of Hysterical Sleep.

Journal of Morphology. Edited by C. O. WHITMAN, with the co-operation of E. PHELPS ALLIS, jun., Milwaukee. Vol. I. No. 1. Boston: Ginn and Co. London: Collins.—A journal devoted to morphology alone would some years ago have been considered as destined to early extinction from mere lack of matter, but so rapid has been the process of specialisation in the subjects of anatomy and physiology, and the workers are so numerous, that there is every reason to believe the part before us will be the progenitor of a long line of descendants, and that material will be forthcoming from the other side of the Atlantic to fill many a future volume. The present is full of promise, and contains seven really valuable contributions to science. They are: (1) An Account of the Sphyranura Osleri, by Ramsay Wright and A. B. Macullum; (2) the Development of the Compound Eyes of Crangon, by Dr. J. S. Kingsley; (3) the Eyes of Mollusks and Arthropods, by Dr. William Patten; (4) on the Phylogenetic Arrangement of the Sauropsida, by Dr. G. Baur; (5) a Contribution to the History of the Germ Layers in Clepsine, by C. O. Whitman; (6) the Germ Bands of Lumbricus, by Professor E. B. Wilson; and, lastly, Studies on the Eyes of Arthropoda, by Dr. William Patten, especially dealing with the Eyes of Vespa. It will be seen that all these subjects are of importance, though perhaps a little

undue prominence is given to the organs of vision, three out of the seven papers being devoted to this subject. The illustrations, especially of the paper on the development of Clepsine, by Mr. Whitman, are exceedingly good, and altogether the type, paper, and general get-up of the volume reflect great credit on the publishers.

An Introductory Text-book of Zoology. By H. ALLEYNE NICHOLSON, M.D. Sixth Edition, 250 pp., 180 illustrations. Edinburgh and London: William Blackwood and Sons. 1887.—This is a work that may with advantage be read in the higher classes in school and as a preparation for the local examinations of Oxford and Cambridge. The descriptions of the several classes and orders are short but clear, and most of the orders have one or more illustrative woodcuts, which are well executed. A few additions might in some parts, we think, be made with advantage. Thus while Dr. Nicholson gives in birds the bones of the shoulder and pelvic girdles, he omits the cranium, the distinctive characters of which are very important and well marked, and which might have been dismissed in a few lines. So, too, in mammals, the teeth of the chimpanzee are given, which might have been omitted and replaced by those of rodents, insectivores, and ruminants. There is a good glossary.

Note-book for Dental Students.—This is a fair digest of Tomes' "Dental Anatomy," the standard text-book on the subject, and may be useful for the student to read over prior to examination. The writer, we are glad to find, has placed an index at the end, so that any subject can be looked up in a moment.

Dod's Peerage, Baronetage, and Knightage, 1888.—This new edition possesses some additional interest by reason of its inclusion of the record of the creations, appointments, and promotions, on the celebration of Her Majesty's Jubilee, at home and abroad.

New Inventions.

THE "RANELAGH."

THIS machine, the annexed illustration of which is sufficiently plain to convey its construction to the mind of the reader, has been designed to promote healthy

muscular development of the human body. By its use every kind of exercise can be given to the muscles, and the series of indiarubber strands (which govern the strength) are so arranged as to prevent the slightest jerk in the motion. It is equally adapted for the use of a delicate child or a strong man. The appliance is an excellent one. It is made in three sizes—viz., No. 1 for ladies or children, and Nos. 2 and 3 for gentlemen, the latter being exceptionally strong. Messrs. Walkley and Co., No. 5, Strand, London, are the makers.

"SALT'S STUDENTS'" READING AND WRITING EASEL.

MEDICAL PRACTITIONERS have long viewed with regret the evil results experienced by adolescents, especially young ladies, from retaining for long periods the cramped and unnatural position they are compelled to assume while writing for educational purposes at desks of the ordinary construction, the slope of which is too inconsiderable to admit of their use without undue stooping of the head and consequent strain on the ligaments of the cervical vertebræ; moreover, this angle cannot be varied. Mr. Salt of Birmingham has devised an easel (figured below) which is

at once light, handy, portable, and moderate in cost, and the use of which appears calculated to greatly diminish this evil. It is made of polished birch, and forms a seemly article of furniture; the hanging flap, having a bead for the retention of the writing materials, is so arranged that it may be lowered from the horizontal position to any requisite angle by means of a neat quadrant on either side, so that the student may sit in the position most approved by the medical attendant and most convenient to herself. The height of the desk may be raised or lowered at once by a simple lifting arrangement to suit different statures, and the whole folds up in a remarkably small space.

WOOD WOOL.

THE Sanitary Wood Wool Company, Hatton-garden, have submitted to us samples of this fabric in the form of sheets, diapers, &c. The same material, used as a surgical dressing, was noticed with approval in THE LANCET of Nov. 24th, 1883, and we may here reiterate the favourable opinion we then expressed of its value, on account of its lightness, softness, and highly absorbent quality. These properties make it eminently suitable as a material for dressings (which may be rendered antiseptic by being impregnated with a due proportion of corrosive sublimate), as well as for other purposes.

THE LANCET.

LONDON: SATURDAY, FEBRUARY 25, 1888.

THE brilliant picture of the future of London and similar great human hives, drawn by Mr. FREDERIC HARRISON in his recent address, is one which we can hardly afford to dismiss as the unsubstantial vision of a gifted enthusiast. It cannot be too clearly understood that we are becoming a nation of city-dwellers, and that very soon the problem of problems will be whether city life can be so ordered as to preserve to the race its normal integrity of physique. Greater London adds to its great population at the rate of 1,000,000 in every decade, and we can discern no signs of slackening in this mighty tide of increase, and no definite limits at which it is likely to be permanently arrested. If the rate of increment be less in other great centres, it is nevertheless rapid and steady, and there can be little doubt that if the present economic conditions continue, another century will find England covered with cities vaster and more populous than any of which former ages could boast. In view of such facts two questions of paramount interest and importance suggest themselves: first, Is the increase of great cities attended by any special dangers? and secondly, Are these dangers, if there be such, necessary and inevitable, or capable of mitigation or removal?

There can be little doubt, we think, that the former question must be answered in the affirmative. The growth of great cities *has* peculiar dangers, of which the sources are sufficiently obvious. These dangers arise from such causes as the difficulty of securing to town populations the two prime necessaries of healthy existence—pure air and pure water; from the injurious dietetic customs which are apt to be engendered by city life; from the lack of opportunity for wholesome exercise and recreation; from the facilities which exist in large cities for the spread of communicable disease; and, lastly, from the heightened struggle for existence, with its correlated evils of excitement, worry, and over-pressure. These considerations are sufficiently obvious, and it can hardly be doubted that such dangers are real and worthy of our best attention. On the other hand, we are still without much precise evidence regarding the nature and extent of the degeneracy of town-bred populations. It is alleged that scrofula and phthisis are relatively very prevalent in large cities, and, regarding the latter of these two diseases, it is indisputable that it shows a marked tendency to increase in direct ratio to the density of population in any given area. It is also asserted, perhaps without sufficient ground, that town-bred populations would steadily die out unless maintained by the influx of country folk, and that it is very rare to find pure-bred Cockneys of the third generation. Here is an assertion which might be tested, and the tests, if thoroughly applied, might shed much light upon many interesting problems of economics and vital statistics.

Our second question may, we think, admit of an equally confident answer—viz., that the dangers of city life are only in a slight degree inherent and inevitable, and admit of practically unlimited mitigation. It is certainly within the limits of possibility to supply town populations with water quite as pure as that which gushes from the hill side or gathers in the mountain lake. The question is one of money, enterprise, and public spirit, and it has been solved successfully by at least two of our largest cities—namely, Manchester and Glasgow. The supply of the former, drawn from Thirlmere, and that of the latter, drawn from Loch Katrine, leave little to be desired. The difficulty of securing perfectly pure air to town populations is certainly greater, but is not insuperable. The first requisite to this end is to secure that the density of population to the square mile is not allowed to exceed a safe limit (not yet fixed); that ample parks, commons, and breathing spaces are left unoccupied within the municipal boundaries; that all sources of air contamination are kept under the most vigilant guard and control; and that the construction of houses shall be such as to admit of thorough ventilation and a perfect hygiene. These measures, however remote their realisation, do not seem to present any practical difficulty which cannot be surmounted. The progress of knowledge regarding food will, we may hope, in time preserve town population from the many dietetic customs which they at present practise to their infinite hurt. Communicable disease, already appreciably checked by Public Health Acts and the progress of sanitary knowledge, will no doubt yield more and more to the applied resources of preventive medicine. How far the last evil which we enumerated—viz, excessive competition and over-pressure of various kinds—can be restrained is a grave problem, when we consider how many and various are the forces which in an advanced stage of civilisation tend to its aggravation. Legislation may do much to improve economic conditions; moral and religious effort will be required, and will not be wanting; and we may look to the enlightening influence of education to promote the easy movement of the multiplex wheels of the modern social state. On the whole, the outlook, although grave, is not disheartening. It can hardly be doubted that the condition of the lower classes, great as are still their hardships, has materially improved during the present reign. Progress may be slow, but it was never so rational or so well directed as it is to-day. Formerly the reformer in many departments was compelled to press blindly on, raising his voice against evils of which he was acutely conscious, but only dimly apprehending the path to be trodden. Now the light of science—never, we trust, to be again extinguished—is on high, illuminating the onward way and encouraging us to press forwards.

AMONGST the problems of pathology which have received a fair share of attention, but which can hardly be considered as thoroughly solved, stands the question of dropsy. This would *a priori* seem to be capable of the simplest explanation, whether the accumulation of the transuded fluid in the connective tissue spaces or serous sacs be considered; mechanical impediment to the normal lymph circulation, or a hydræmic condition of blood permitting an abnormally free transudation, may be summed up as the essential factors of the abnormal state. Other questions are, however, involved in this subject, which are less clearly defined or explained, and it is to them that Professor SENATOR has recently (*Virch. Archiv*, Bd. iii., Heft 2) made a contribution

in an article upon Transudation and the Influence of Blood Pressure upon the Quality of the Transudate. At the outset he is careful to clearly define what is meant by *transudation*. It is essentially a filtration from the blood plasma into the tissues or spaces, from vessels whose walls are not diseased or altered. Therein it differs from an *exudation* which characterises the process of inflammation, but the transition between the two is almost imperceptible. It also markedly differs from glandular secretion, where, in addition to filtration, there are added the products of the specific energy of the gland cells in selecting or converting materials brought to them by the blood stream. As to the actual composition of transudates and exudates, there is very little chemical difference, the main distinction perhaps being the comparatively larger amount of albumen in the latter, due in great measure to the number of cells contained in inflammatory effusions. It is noticeable that the dissolved albumen which these fluids contain is invariably less in proportion to that of the blood plasma itself. The amount of albumen in transuded fluid may vary from 0·5 per 1000 to 20 per 1000, or even more, the lowest being met with in normal transudations—e.g., aqueous humour and cerebro-spinal fluid; whilst of morbid transudations, the largest proportion of albumen is found in hydrocele fluid, less in pleural, pericardial, and peritoneal effusions. However, other factors than situation determine the composition of the fluid in this respect, such as blood pressure, the state of nutrition of the part, the degree of absorption, &c. A long-standing effusion may, for instance, become concentrated by absorption. This albumen, like that of the blood, may be separated into serum-albumen, globulin, and fibrinogen; but there is no constant ratio between these constituents, which sometimes are found in effusions to be relatively more, sometimes relatively less, in proportion than they occur in the blood. The occurrence of albumen in less quantity than in the blood is in accordance with the laws of dialysis, but it must not be forgotten that the composition of the filtrate must vary with the composition of the filtered fluid (i.e., blood), the condition of the animal membrane (i.e., walls of vessels), the temperature, and the pressure under which the filtration takes place. The saline constituents of transuded fluid—as typified in chloride of sodium—are to be found in the same or even in greater proportion than they occur in the blood. So is it with extractives and other matters held in solution in the blood, the presence of which in transudates and exudates markedly distinguishes these products from those of secreting glands. Thus bile and hæmoglobin (when in solution in the blood) pass out into the transudates (normal or morbid), but not into the secretions. The urine is obviously in great part a transudation, and not a secretion, as has already been fully demonstrated by Professor SENATOR in his monograph on Albuminuria.

The process of transudation, then, obeys the laws of filtration through animal membrane, and even the preponderating amount of saline elements in the filtrate harmonises with the fact that where a solution contains both colloids and crystalloids, the filtrate usually comes to have more saline than the original fluid. The effect of a rise in blood pressure upon the quality of the transuded fluid might, if the process were simply one of filtration, be similar to that obtained experimentally by filtration under pressure—viz., an increase in the amount of the filtrate and all its constituents. But the problem is not so easily solved. It is not mere dialysis, but the filtration through a living animal membrane, which is itself liable to be influenced by variations in blood pressure. The sum of most experiments upon the amount of transudation under rise of venous pressure (stasis) is that there is an undoubted increase; and the same is held to be true, although with less unanimity, of the effect of a rise in arterial pressure (active congestion). A more difficult question is that which deals with the composition of the transuded fluid under such circulatory conditions; and this is dealt with by Professor SENATOR, first, in reference to normal transudates—as the cerebro-spinal fluid and aqueous humour. There is no need to follow him in the details given of the experimental work which has been done in this direction, for the conclusions of the whole number of observations by different physiologists are all more or less vitiated by the interference of other influences than those of merely increased vascular tension. Professor SENATOR shows how impossible it is to experimentally induce heightened arterial pressure, whether by ligature of aorta, division of sympathetic, irritation of spinal cord, &c., without thereby inducing other disturbing influences which must affect the results. This is true both of the cerebro-spinal fluid and of the aqueous humour, whilst the limited amount of the latter, the local irritation excited by the necessary means taken to investigate it, the need of experimenting under curare, and other drawbacks, put all those attempts to draw precise conclusions from such experiments out of court; in fact, it is plain that experiments upon animals have shed little or no light upon the question. On the other hand, there is a very simple means available for testing the effect of increased intervascular pressure—at least, on the venous side—upon the quantity and quality of transudation, and that is to be found in the condition of subcutaneous œdema. From a series of observations made upon œdematous limbs, by simply noting the effect produced in a given time by a ligature placed on the limb above the seat of puncture some conclusions can be reached. In each case the fluid was allowed to flow for ten minutes, and its quantity and composition noted. Then the bandage was applied, so as to interfere with the venous return without impeding the arterial flow, and the observation repeated during another interval of ten minutes. The quantity of the fluid was invariably increased, but with marked variations in relative amount, owing, doubtless, to the different degrees of pressure with which the ligatures were applied, as well as to individual differences in the textures. In ten out of thirty cases observed, the percentage amount of albumen remained the same after the application of the ligature as before; but of the rest, there was an increase in thirteen, and a decrease (to a minimal extent) in seven. From the extent to which the increase took place in these cases, it is inferred that it was due to the rise in the intravenous pressure; but there were obviously no facts to determine whether this was proportionate to the degree of pressure. Then as to the saline constituents, estimation of the chloride of sodium in the dropsical fluid showed a slight increase in amount after the ligature in about one-half of the cases, and a similar slight decrease in the other half.

Professor SENATOR thus sums up his conclusions. That

all transudates without exception contain albumen in solution, but in less proportion than blood plasma. The smallest amounts occur in the normal transudates, and in that of cutaneous œdema. That the albumens are the same as those of the blood plasma—viz., serum-albumen, globulin, and fibrinogen; but that little is known as to the relative quantity of each of them. That the amount of saline constituents is nearly the same as, and often in excess of, those of the blood. That all transudates contain such non-colloid bodies as the blood happens to be holding in solution, bodies which never pass out in glandular secretion, such as biliary colouring matter and hæmoglobin. Substances which do not pre-exist in the blood are not met with in transudates, except as the result of decomposition, thus forming a distinction from glandular secretions. Filtration experiments outside the body are of no use in determining the influence of changes in blood pressure upon transudation. The rise of venous pressure causes an increase in the quantity of transuded fluid and of its albuminous constituents, but does not appreciably influence the amount of its saline constituents. A rise in arterial pressure—i.e., active congestion — appears occasionally to increase transudation; but there is no positive evidence of its producing any change in the amount of albumen transuded, or in that of the saline constituents.

THE announcement at Sheffield by the President of the Local Government Board that "it was now for the Government to consider whether an Act compelling the notification of infectious disease should not be passed for the whole country," and his statement that if he could see his way to bring in a Bill of that kind he should "endeavour to do so," taken in conjunction with the inquiry set on foot in his department as to the working of the several Acts dealing with this subject, may be regarded as pointing to some probable extension of facilities for procuring the needed powers, instead of resort to the cumbrous and expensive process of special legislation. The occasion also gives exceptional interest to some of the reports which have been obtained from officers of health on the subject. We recently commented on the report from the city of York, and there are points in the one received from Huddersfield that also merit attention.

Dr. CAMERON expresses himself almost unreservedly in favour of the system of notification; indeed, in his opinion, its only defects are trivial ones, and these need amendment only by way of extension of the system beyond its present limits. Huddersfield has had two Acts dealing with the subject. One was passed in 1876, the other in 1880, and it may well be assumed that the latter was so contrived as to obviate defects found to attach to the former. The work done under the latter Act evidently extends far beyond the mere prevention of the spread of such disease as is actually reported at the time. Defects discovered at the houses implicated are remedied; arrangements are made to control school attendances and trades liable to do mischief, in view of the contagion that is present; and in the case of diseases such as erysipelas and puerperal fever precautions are taken that no further risk shall be incurred through attendance on surgical and parturient patients. All this must be recognised as tending materially to promote health and to diminish the amount of preventable disease and death.

No noteworthy failure to supply the notification has interfered with the efficiency of the system; indeed, parents and neighbours at times notify directly to the sanitary department; and any objection to hospital isolation is on the decrease. Even in ambiguous cases Dr. CAMERON believes that ignorance and not wilful evasion of the Act is the principal cause of such failure to notify as has existed; but he is inclined to think that some amendment should be made so as to make the lay public responsible for notifying instances in which there "is room to suspect" infectious disease. Medical men do, he says, largely supply such information, but mischief may at any time ensue on the failure to report cases where no medical attendance has been sought. Some authorities might fear that a clause of this sort would lead to abuse; and it would doubtless largely increase the work of sanitary officers. Then, again, the existing clause refusing a fee for certifying a second or third case within a month is held to be a great mistake; and in instances where the additional patients are left at home, the absence of renewed notification tends to do away with the value of the system. This is especially the case where second attacks are concealed, and the notification of them can only come through the medical practitioner, who is under no obligation to report, and who will receive no fee if he does. Dr. CAMERON'S comments as to this are worthy of notice by some authorities who are now objecting to multiple notifications from the same house.

One feature of Dr. CAMERON'S report is the detailed manner in which he has endeavoured to give information as to the success of the Acts in the saving of death; and his diagrams of death curves are very interesting in this respect. As to scarlet fever and diphtheria, notification has had no proper chance in Huddersfield owing to lack of sufficient hospital accommodation; and from this point of view it is explained that the dearest form of hospital is that which is insufficient to meet the proper demands made on it. But for all this, the mortality from scarlet fever during the period for which comparison can be made has markedly diminished since the local Act admitted of the isolation of the sick. Measles, on the other hand, which is not notified, has evinced no such improvement; and it is suggested that this disease might properly be brought within the provisions of the Act. There is much information in this report which will be read with advantage by those who are considering the question of extending the system of notification of infectious diseases, its advantages and the difficulties which attach to the system being fairly indicated. Dr. CAMERON believes that much more might be done under the system than has hitherto been effected, but for this it is evident that he holds ample hospital provision to be, above all other things, essential.

THE time for estimating the value of electrolysis as applied to uterine fibroids is not yet come; indeed, it seems to us remote, for not only has the treatment received no sceptical testing by competent and trustworthy observers in England, but the life history of uterine fibroids is of a length which requires the lapse of years before the effect of any treatment short of removal can be justly appraised

The treatment is at present the last thing in panaceas, and bids fair to eclipse even massage. This fact is a great attraction to some minds, and raises suspicions in those of a different cast, with the result that at first the best and most trustworthy leaders have stood aloof from it. It is from such men rather than from enthusiasts that we shall eventually rely for the separation of the wheat from the chaff, and a just estimation of the value of the treatment. In the meanwhile it will perhaps not be amiss to say a few words about the present state of the question. In the first place, it is by no means true that it "has been demonstrated beyond doubt that electrolysis, when properly performed, is the most certain, safest, and successful (*sic*) way of dealing with fibroid tumours that we possess." Persons who make such statements should be prepared to convince, not the credulous, but the sceptical, by well-observed and trustworthy experiments containing every detail which can possibly be required by any honest unbeliever. At present, as we have already said, the time test renders such information impossible, and the nearest approach to statistics which we can get is the vague statement that 95 per cent. have owned to permanent benefit. Human gratitude is almost as wonderful as human ingratitude, and is often founded on an equally solid foundation; therefore, to prove the reality of benefit to those who require proof this is not enough. In the second place, a word may be said on the subject of the competence of any but electricians to apply the treatment. On this point there appears to be a difference of opinion. Dr. APOSTOLI says of his treatment: "It is easy of application, since it only requires an elementary acquaintance with the principles and practice of electro-therapeutics..... It is simple, for it is ordinarily nothing more than a skilful, uterine, therapeutical soundage. This is only what may be expected of every surgeon provided with a good galvanometer of intensity, some sort of battery capable of yielding an adequate current of electricity, an inoffensive cutaneous electrode in wet potter's earth, an inattackable intra-uterine electrode in platinum, and a steel trocar for the galvano-punctures." On the other hand, another electrician writes: "The technical knowledge required, and the expense of the batteries and apparatus, will no doubt limit its employment to a great extent to those who make electricity a more especial study." Thus it will be seen that Dr. APOSTOLI urges the ease and simplicity of electrolysis as a reason for its wide employment, while another writer urges its difficulty and complication as a reason for its being confined to electricians. Between the two statements our readers will choose according to their judgment. But it may be well to dissect a few of the above remarks. In the first place, the apparatus, complete, costs £20. In the next place, the technical knowledge required consists in the knowledge which those accustomed to pelvic and abdominal tumours possess, and which electricians as electricians do not possess. This Dr. APOSTOLI honestly sets forth in the following words: "It being, however, unconditionally understood that a profound knowledge of gynæcological science must be the indispensable prelude to any attempts." Are we, then, to expect the appearance of a new hybrid—the "electrical gynæcologist"? Dr. APOSTOLI says in effect that such a development is superfluous. The other piece of technical knowledge required is that necessary for keeping the apparatus in order, which is possessed in its highest degree by the electrical engineer, or, in other words, requires the occasional supervision of the maker of the apparatus. The skill in manipulation required, and referred to above by Dr. APOSTOLI, consists in the passage of the uterine sound to which the battery is connected. This is, in fibroids, sometimes quite a difficult matter; but it is strange to read that galvano-puncture is most frequently employed with the object of "making an artificial passage into the uterine cavity." Such a statement will puzzle those who are familiar with the structure and arrangement of fibroid tumours during life and after death. If the sound cannot be passed, how is anyone to know where the uterine cavity is, and how is he likely to discover it by puncture? The third necessity is experience of the treatment itself, which will be acquired by those who practise it, whoever they may be. Lastly, it will not be amiss to say a word on the subject of remuneration. Dr. APOSTOLI says the method is simple and makes little of its difficulties; the greatest difficulty is the introduction of the sound; the knowledge of electro-therapeutics required is small. His mortality has been 2 out of 403, or ·5 per cent. It is plain to us that there is no excuse for erecting electrolysis into a "costly and elaborate operation." Such attempts will inevitably discredit the whole treatment, and should be steadily discountenanced.

We shall wait with interest for the appearance of detailed and trustworthy statistics relating not only to uterine fibroids, but also to fibrous and other tumours on the external surface of the body, the changes in which can be much more easily and directly observed.

Annotations.

"Ne quid nimis."

DEGREES FOR LONDON MEDICAL STUDENTS.

A MEETING of delegates of the London medical schools was held at the Middlesex Hospital College on the 22nd inst. to consider the scheme of a Teaching University put forward by University College and King's College. The following gentlemen attended the meeting:—Mr. Berkeley Hill (University College), Dr. Curnow (King's College), Dr. Norman Moore (St. Bartholomew's), Dr. F. Taylor (Guy's), Mr. Treves (London), Dr. Mitchell Bruce (Charing-cross), Mr. Malcolm Morris (St. Mary's), Dr. Coupland and Mr. Gould (Middlesex), and Dr. Reid (St. Thomas's). The points of difference in the schemes of the Royal Colleges of Physicians and Surgeons and of the two Teaching Colleges were discussed, and it was pointed out that there was no clause in the Draft Charter of the latter bodies which would give any advantage to the medical schools attached to these Colleges over the other London schools. The meeting was adjourned until Wednesday next, without any line of action being determined on. It was stated that notice had been given by the Privy Council that the petitions for a new University in London would be taken into consideration after April 16th next. It would thus seem as if Her Majesty's advisers in Council have not, as yet at any rate, determined on an investigation by a Royal Commission. Ultimately the meeting was adjourned to the 29th.

DARWIN AS A MEDICAL STUDENT.

THE life of Darwin should possess a special interest for medical readers, inasmuch as he and his work may in a sense be regarded as the product of our own profession. Associated through father, brother and son with medical practice, he may be said to stand in the position of an erratic blood relation, and the connexion is all the closer for the fact that he himself actually passed through two years of the medical curriculum at Edinburgh. How far the character of his mind was affected by the impress of these early studies is open to question. They probably had a certain value in training his remarkable powers of observation, though there can be little doubt that as a student of medicine he was neither enthusiastic nor distinguished. Notwithstanding the parental intention in sending him to the northern metropolis, and the decidedly medical tendencies of his elder brother, it soon became apparent that his heart was not in his work. Lectures which were carefully prepared and proved interesting and instructive to others were dull to him. The talent of a popular exponent such as Hope was apparently required to convince him that all such expositions were not equally tedious. Dissections were not at that time compulsory—a fact which pointedly illustrates the comparative disadvantages under which the student then laboured as compared with now. Darwin, to his great regret in after-life, was not one of the voluntary dissectors. It must not be supposed, however, that he was an idler: he appears to have applied himself, with a fair degree of diligence, to the distasteful task of learning, or beginning to learn, the art of medicine. But the inborn faculty would have its way, and we find zoology taking a prominent place among the occupations of his leisure time. His mind, still unsettled in its purpose, was feeling its way towards the subject which was afterwards to become the field of unique investigation. Wisely, its groupings were not thwarted in favour of more immediately practical considerations. What success it might have attained had medicine become its absorbing pursuit; it is impossible to say. We cannot, without some compulsion of reason, picture Darwin as an active practitioner. Perhaps, indeed, he might have won the rare distinction of achieving greatness both in practical efficiency and in wide original research. It is more probable that the thinking power would have continued to assert its predominance. Would we in that case have witnessed the production of an evolution theory engendered by a study of the sciences related to medicine? It might well have been so, but the new doctrine must then have lacked much of the force of demonstration which it now possesses as the result of minute, repeated, and extensive inquiry in an almost illimitable field. We should not, therefore, grudge the loss from our ranks of one who, though he might be spared from medicine, was to science indispensable.

COCAINE IN URETHRAL OPERATIONS.

DR. ALEXANDRO SETTIER gives in a Spanish medical journal his experience of the employment of cocaine as a local anæsthetic in operations of various kinds on the urinary organs. He has used it in nine cases of internal urethrotomy, one divulsion (forcible dilatation), two urethro-perineal fistulæ operations, one rapid lithotrity, three circumcisions for complete phimosis, and two extirpations of vegetations. In none of these eighteen cases has he observed any serious toxic symptoms such as have been described by Peck, Reich, Bellyarminoff, and Keyser. In three cases, however, the patients complained of severe headache and great dryness of the mouth. The solutions used were generally of the strength of 5 or 6 per cent. For internal urethrotomy a variable quantity (in one case as much as five drachms) of the solution was introduced into the urethra, as near as possible to the seat of the stricture, by means of a catheter in the form of a simple tube open at both ends. This solution was allowed to remain in contact with the tissues for twenty-five minutes before the operation was commenced. In all cases of this description the cocaine succeeded admirably, the patient feeling no pain at all except at the moment when the stricture was divided, and then only in a very slight degree. The action of the drug was much less satisfactory in the single case of forcible dilatation, but the pain lasted a much shorter time than it does in similar cases where no anæsthetic is employed. No effect was produced in the cases of urethro-perineal fistulæ. In the lithotrities, circumcisions, and the operations on preputial vegetations very good results were obtained. In the two latter classes of cases the cocaine was combined with glycerine or vaseline in the proportion of 1 to 15; this was applied over the surface of the prepuce. In one of the phimosis cases an 8 per cent. solution was likewise injected under the prepuce. This, however, caused a good deal of headache. Dr. Settier remarks on the importance of keeping the solution a long time in contact with the mucous membrane of the bladder in cases of lithotrity, in order to prevent contractions of the organ taking place during the process of aspiration.

SANITARY STATE OF DUBLIN BARRACKS.

IN the House of Lords on Tuesday last Earl Beauchamp brought under consideration the unsatisfactory sanitary condition of the barracks in Dublin, as shown by the prevalence of enteric fever among both officers and men, and moved for the continuation of a return showing the number of cases from January, 1881, to December, 1887. Lord Herschell said it was really appalling to consider the number of cases of fever which had occurred, enteric and otherwise. Lord Harris and Earl Spencer spoke also as to its great prevalence, especially in the Royal Barracks. The Duke of Cambridge, while admitting that the subject required investigation, called attention to the increase of enteric fever among British troops all over the world; "throughout the whole of Ireland there has been more fever than usual, and no doubt the Royal Barracks have had their share in the increase of that disease." The first question which occurs to us in connexion with this discussion is, What evidence is there of this "really appalling" prevalence of fever in Dublin Barracks? The latest report on the health of the Army which has been published is that for 1885, and we find from it that in the Dublin District the cases of fever, exclusive of eruptive fevers, amounted to 24·7 and the deaths to ·81 per 1000 of strength, while enteric fever gave the proportion of 2·8 cases and ·69 deaths. But during the same year the troops in the Home District, which includes London, Windsor, and Hounslow, the cases of fever were 27·8 and the deaths ·88, and of enteric fever 5·9 and ·88. The averages of the ten preceding years correspond very closely, the prevalence of enteric fever being identical in the two districts, and the mortality by it being only ·03 higher in Dublin than in the Home District. It is true these ratios are higher than at most other stations, but this is almost an unavoidable consequence of being quartered in large towns in which enteric fever is always prevalent. From these data it would appear that up to 1886 the prevalence of fever, and especially enteric fever, had not differed greatly in the Home and Dublin Districts. The excess of these diseases referred to in the discussion must have occurred during the last two years, and any such outbreak should be watched with great care. On the present occasion there are two points which seem to call for inquiry. First, whether the increase in the prevalence of enteric fever has been confined to any one barrack in Dublin, or whether it has occurred in all.

The second is, whether such increase has been only among the troops, or has also shown itself among the civil population in the midst of whom they have been quartered? To make this comparison of any value, however, it is necessary that it should be confined to the population at the military ages, and these ages distributed alike in the two classes. Unless this be done the results can only lead to error. We believe that all medical officers who have any knowledge of the Dublin Barracks will admit that they are essentially bad. They are old, and have not been brought up to what are now deemed the necessary requirements for a healthy dwelling, and they are placed in the midst of insanitary surroundings. The Royal Barracks are not only old, but crowded together; there are many sanitary defects in them, and their drains run into the river close to the barracks. It will, therefore, be undoubtedly a great benefit if the recommendations of the two gentlemen who have reported upon them are adopted by the authorities, and the Treasury grant the necessary funds. We cannot but regard with satisfaction the steps which have been taken in this matter to have a full and independent inquiry into the condition of these barracks. The representations of the medical officers on sanitary requirements are too often looked upon as a mere matter of course, and it is only when public opinion is roused, as in this instance, that there is any chance of the Government providing the funds required to carry them out efficiently.

THE LONDON FEVER HOSPITAL.

THE medical report of Dr. Cayley, the senior physician of the London Fever Hospital, read at the annual general meeting of the governors, is of considerable interest. The admissions into the hospital of scarlet fever cases exceed those of any year since 1870, when the hospital received all the pauper cases of the metropolis. The number admitted was 817, of whom 27 died, giving the low rate of mortality of 3·9 per cent. It is remarkable that in no quarter of the year did the mortality reach the average of the last ten years. Five nurses and one servant contracted the disease, but all recovered. No patient admitted for any other disease contracted scarlet fever. The rarity of typhus fever is illustrated in this report. There has been no case in the hospital since 1884. Lord Balfour of Burleigh presided. The annual subscriptions exceeded those of the previous year by £387 6*s.* 5*d.* Lord Balfour observed that according to the total expenditure of the year each patient cost the hospital about £11 8*s.* The average stay of each patient is about six weeks, giving a charge per week of £1 18*s.*, which, considering the nature of the diseases, we may, with the chairman, regard as reasonable. The hospital is largely used by tradesmen, shopkeepers, shop *employés*, clerks, and governesses. The authorities of the hospital properly endeavour to get as much payment towards their expenses as possible, but some free cases are admitted, and in other hard cases the charges are partly remitted. Taken altogether, the hospital meets a great public want, and is well entitled to the help of the benevolent.

CHILDREN'S PUNISHMENTS.

SINCE the time when the wisest of rulers advised that the rod should not be spared in childhood, various opinions have divided the minds of men with regard to this subject. History has described, and tradition handed down to us, a variety of chastisements moral and physical. No one probably has ever seriously denied the need of some form of correction. The birch, the cane, the strap, the "tawse" (familiar to many a northern urchin), the box on the ear, and other ready methods have vied with less abrupt, but not more genial, means—impositions, confinement, temporary forced abstinence, and many more—in seeking an established place in the *régime* of the school and the family. Something might be said for most of the varieties above mentioned, but there is one objectionable practice which cannot under any conditions be permitted. Boxing or pulling the ears, or, indeed, striking any part of the head is most injudicious. Whatever excuse may be made for the practice as a part of our social system, it can find no sanction in medical circles. Serious and irremediable injury may easily result from so simple a proceeding as a cuff on the ear. Fortunately for the reputation of penal force as a remedy, every form of corporal punishment is not equally objectionable. In applying it, however, some regard must be had to the type of child under correction. Thus it would be unjust to allot a chastisement suitable for robust children to their nervous or feeble companions. The punishment in the latter cases would be doubly felt, needlessly severe, and out of proportion to the offence. As regards moral means of correction, again, it may be doubted whether they are commonly less harsh or more effectual than physical methods judiciously used. For sensitive children they may sometimes no doubt be preferable to more drastic measures. They may possess, as in the case of school impositions, a certain educational value which should not be overlooked. The objection to such as imply confinement in-doors is a somewhat important one in cases where the culprit is some poorly-nourished youngster to whom fresh air is a luxury, or in any case where the punishment is frequently repeated. In most cases, however, an occasional extra half-hour in school should do no great harm. Still, there is no reason why such means should supersede the physical methods.

MORE AIR FOR LONDON.

MISS OCTAVIA HILL has done a great service by publishing for the information of the London public the results obtained last autumn in a careful survey of the open spaces at present secured to Londoners. The map with which her article in the current number of the *Nineteenth Century* is illustrated makes the main facts brought out evident to the eye, but the moral is even more obvious in the following figures, which we extract from her paper: "In the eastern semicircle there is a population in the four-mile radius of 1,160,173, while the western contains 1,668,412. Thus, we have in the western semicircle one acre of preserved open space to every 682 people, and in the eastern one acre to every 7481 people." One acre to 7000 people? What wonder that in several of these spaces the grass has to be preserved by prohibiting large sections of it at a time to visitors, protecting it by more or less permanent enclosure against the trampling of foot passengers, with, of course, this result, that the scanty acres of the eastern half are rendered, space for space, much less efficient than the more abundant grass land of the western semicircle. Surely the Charity Commissioners and the wealthier inhabitants of London do not want a more piteous appeal than this to induce them to secure the two considerable spaces for which Miss Octavia Hill pleads. Clissold Park especially, lying partly within the four-mile radius and quite near the centre of the north-eastern quadrant, where open spaces are most scarce, has irresistible claims to be secured for public use. Parliament Hill occupies a corresponding position in the north-west of London, and although that part of Miss Hill's map shows a better allowance of green area, it must be remembered that the adjacent suburban district is in this direction less well provided in that respect than the more centrally situated parts. While we cordially re-echo the demand that these exceptionally valuable spaces shall be secured for permanent public use, we are nevertheless disposed to think that the most valuable suggestion in this valuable paper is conveyed

in the following words: "I have always felt that working men wanted good walks, and whenever I thought about buying land in the suburbs, it always seemed to me that money would go much further if, instead of buying a large square area for a park, one could buy a field path, with a good space on each side of it. If this were done, the approach to the commons and parks, the forest, or the heath might still be by these pleasant walking ways, which are so much healthier and more refreshing than the train or the omnibus, and bring the sense of country much nearer to the town." This is eminently true, and we will add that by affording encouragement to the most universally available form of physical exercise such rural and semi-rural walks provide what is probably the very best form of recreation ground which an overcrowded London neighbourhood can possibly possess. Small central spaces are, as Miss Hill graphically terms them, "open-air summer sitting-rooms." The pleasant walk is, for men and women who have passed the age of romping, the finest exercise ground that can be had in summer or winter either.

THE DOUCHE AS AFFECTING BLOOD PRESSURE.

DR. SERGIUS VISHEGORODSKI, a Russian regimental surgeon, publishes as a graduation thesis some researches on the effects of the general douche at different temperatures on the blood pressure, pulse, respiration, and temperature. The experiments were conducted in the Krasnoselski military hospital, the eleven subjects being feldsher students (hospital orderlies.) The reservoir from which the water for the douches was supplied was about fifteen feet above the floor of the bath-room. From the reservoir two tubes, each about three-quarters of an inch in diameter, conveyed the water to the vicinity of the subject; one of these delivered the water in the form of rain; the other delivered three jets directed to the liver, the spleen, and the back. The duration of the douche was two minutes. The blood-pressure was estimated by means of Basch's sphygmomanometer, an instrument which consists of an elastic pad filled with liquid placed over the radial artery, and communicating with a mercurial or aneroid manometer. Dr. Vishegorodski found that with douches of from 63° to 90° F. the blood pressure was considerably increased, but that douches of from 100° to 114° F. diminished it. The increase of pressure in the former case was found to persist for some time, not returning to its normal amount for more than an hour after the douche. The variations in the blood pressure occurred simultaneously with corresponding variations in the cardiac beats, the latter becoming slower as the blood pressure increased and more rapid as it diminished. This appears to be contrary to the results obtained by Delmas, who, however, judged of the pressure merely by sphygmographic observations. Douches of a little over 90° F. produced scarcely any effect on the blood pressure, the pulse, or the respiration. It is interesting to observe that, in discussing physiological questions, Dr. Vishegorodski—like, indeed, many other Russian writers—quotes as his authority Foster's well-known text-book (Russian translation).

THE ISLINGTON JUBILEE AND THE GREAT NORTHERN AND CENTRAL HOSPITAL

THE committee of the Islington Jubilee Fund have just handed over a second contribution of £2000 to the Great Northern and Central Hospital, making £4000 in all. This is not bad, though not so good as some sanguine friends had hoped. The Hospital Building Fund is still sorely in want of help. The committee of the hospital have appealed to the Charity Commissioners for some of their spare money, and the application is not unreasonable.

THE RULES OF PROCEDURE.

MEDICAL men, in common with the rest of the nation, will admit a feeling of genuine satisfaction at the prospect of some relaxation in the fruitless overwork of Parliamentary discussion foreshadowed in the new Rules of Procedure. The work and worry of debate in the House of Commons, even under favourable conditions, is considerable. United as it is in the case of many members with the fatigue of ordinary business duties undertaken at other hours of the day, it is sufficient to test the energy and endurance of most men. Under the pressure of such weighty questions as have of late years forced themselves upon the attention of the House, the burden has become wellnigh intolerable. The practice now so usual of attempting to compress the work of two or three sessions into the limits of one is another error which stands in need of regulation. Any such forcing system cannot be expected to yield the solid results of stronger if more gradual methods, but must be fruitful of spurious effects and of injury to health, not only as regards the body politic, but also the minds and bodies of those who represent it. Of all-night sittings, irrelevance, wilful protraction of debates, and vehement disorder the country has had more than enough. It will therefore view, as a token of wholesome reform, the adoption of rules which fix the length of the parliamentary working-day at nine hours, which will summarily check unmannerly disturbance, and will confine the scope of discussion within limits prescribed by business requirements, but amply sufficient for every purpose of sincere argument.

"PERSONAL EQUATION."

THE observation made by astronomers under the name of "personal equation" is one that ought to have very considerable physiological interest. It represents, as is well known, the error which an observer makes in recording the time of an observed event, and is due to a variety of causes which are all, however, very nearly allied, and mostly more or less dependent upon the direction and velocity of nervous action. For instance, the observed event may be, and most commonly is, the passage of a star across a particular point in the heavens. The observer does not *see* the transition in the very instant of transit, because, in the first place, the distance of a star is such that light takes an appreciable time to travel from it to the observer's eye. But this is an easily calculable error, and is in no way personal to the observer, being, indeed, a purely objective phenomenon. For present purposes it may therefore be ignored. Yet even after taking it out of the calculation, we find that a further allowance has still to be made; for the observer cannot *perceive* the object focussed upon his retina as soon as the image has been so produced. The nervous impulse thus originated must travel up to the sensorium, and be there translated into terms of consciousness before becoming a perception. Furthermore, as the observer has to record his perception, he must send away an efferent nervous impulse, which will set the machinery of his hand and recording instrument in motion, and hence the record itself is affected with the accumulated delay incurred in the carrying of the afferent impulse up to the sensorium, of the efferent impulse down to the manipulating organ, and of the production in the various nerve centres concerned—(1) of the conscious perception, (2) of the resulting motor nerve impulse, and (3) of the peripheral muscular discharge. It is this delay which the personal equation measures, and the reduction of observations by its means affords one of the most refined experiments ever made in physiological kinematics. It is a little disappointing, therefore, to find that exclusive regard to the practical object of making their observations correct has prevented our friends the astronomers from keeping

their records in such a form as to be available for physiological research, and the disappointment is rendered keen by such an announcement as the following, which we extract from the last number of the *Observatory*: "In No. 2815 of the *Astr. Nach.*, Dr. Hilfiker gives an account of a change which has taken place in the difference between his personal equations when observing with the 'eye and ear' and chronographic methods. This difference has decreased from + 0·08 S. in 1883 or 1884 to 0·02 S. in 1887. ..... A very similar series of observations has been conducted at Greenwich. ..... There does not seem any marked change in any of these instances." Were it possible to obtain a series of recorded personal equations giving the variations in this interesting function for different individuals and for the same individual over a period of years, how valuable they would be to the neurologist. So one naturally thinks, but the record itself falls far short of realising the hope. In the first place, the equation is computed, not with reference to the actual time of the event, but with reference to the *time as observed* by one particular observer, who is taken as a standard, and whose equation is assumed, quite arbitrarily, to be zero. Hence we find in the record gifted individuals whose equations are given as being negative qualities; but this does not signify that their nimble senses outrun events, but only that they lose less time than the model man with whom they are compared. It is easy to see how the adoption of an inconstant standard such as this detracts in every way from the merit of the results obtained, and, though perhaps it seems much to ask, we hope that in process of time our astronomical friends will see their way to the adoption, in the general interests of science, of some more exact method of measuring the personal equation.

SHOULD NURSES SET FRACTURES?

WE should have considered it totally unnecessary to discuss the question which stands at the head of this paragraph if our attention had not been directed to some cases that have recently been investigated by the committee of the Walsall Cottage Hospital. From the reports in the local newspapers, we learn that it is the recognised practice at this hospital for fractures to be set and treated by the nurses, and subsequently referred to the surgeons at their next attendance. So common is this practice that one nurse stated that "she had set over 1000 broken limbs since she had been connected with the hospital." Dr. Maclachlan is reported to have said that the nurse "saw every patient, and if it was an important case sent for the doctor, but if it was unimportant she attended it herself." The cases that were the subject of inquiry were two cases of fracture of the wrist, in which the hand was left useless. We need not enter into any of the questions connected with these special cases, nor express any opinion as to the treatment adopted. But all the more do we feel compelled to protest in the most emphatic terms against the wrong system that has been adopted or permitted to exist at this hospital. The *rôle* of nurses is perfectly distinct—to carry out a line of treatment, not to initiate it. Nurses do not receive training to fit them for such responsibilities as have been thrust upon them or assumed by them at Walsall. It is a truism to point out that the value of thorough medical training and knowledge is shown in deciding what cases are "important" and when particular lines of treatment are required, rather than in actually carrying out the treatment. Fractures, surely, are no exception. Of all surgical cases, none give more anxiety to a surgeon than fractures. They are so common, and usually are repaired so well, that the public get the idea that their diagnosis and treatment must be very simple. It requires but a slight surgical experience to show how entirely erroneous is such an opinion. But in the case in point we must also remember the peculiar relations of hospitals to the public. Happily, hospitals are associated in the public mind with the gratuitous bestowment of the highest medical and surgical skill. An injured man feels, and ought to feel, when going to a hospital, that he is sure to receive all the help towards his recovery that the best surgery can bestow. The committees of hospitals should take every care that nothing is allowed to be done to undermine this confidence. But nothing will more certainly create mistrust than leaving the chief responsibility of their out-patient department in the hands of nurses, however skilled and experienced.

LEEDS VACCINATION RETURNS.

ACCORDING to an article in the *Leeds Mercury*, it appears that Mr. Holmes, the vaccination officer for the Leeds Union, has died of accidental poisoning, and it is added that very painful disclosures have been made as to irregularities in the performance of his duties. He had always been regarded as a typical officer, and his results were held up as a standard of what such work could succeed in effecting. But it is now stated that his returns were fraudulently manipulated, and that within the last few days it has been ascertained that the signatures of medical men to many certificates had been forged. His percentage of successful vaccinations was set down at 99 per cent.; it is now feared that it does not in reality exceed 60 to 70 per cent. Locally, the system of payment by fee for each certificate is held responsible for this result, such method of payment being regarded as a distinct temptation to fraud. Such an allegation appears to us unreasonable. The abuse of a system is no argument against its proper use, and we believe that, though this system is now all but universally adopted, no fraud has ever before been associated with it. The alternative is to pay by an annual salary, which offers no inducement to real diligence in seeking out individual cases of default. The Leeds guardians, however, have a desire to try this latter system.

INFANT LIFE INSURANCE.

SOME years ago a member of the Obstetrical Society made a suggestion which was so admirable in theory that it is to be lamented it was so hopelessly impracticable. It was that parents should receive a sum, not at the death of their infants and children, but on the latter attaining the age of twenty-one. Possibly some modification of this may be adopted some day; for the present it will be better to notice the remarks of a daily contemporary on the carelessness with which insurances on infants' lives are accepted without proper inquiry being made as to whether one or more insurances have not been previously effected. The principle of insurance or entering an infant in a burial club is a most laudable one, for it is a wise provision towards meeting the expenses which death might entail; and as any child, however well cared for, may die suddenly, or after a very short illness, this lends an additional importance to the forethought which prompts infant insurance. But, like all movements begun with good intentions, it is liable to very gross abuse. While the limit fixed by law for a child under five years of age is £6, this may be exceeded to any extent by multiple insurance, thus offering a terrible inducement for murder by omission or even commission. What is required is some system which shall do away with the necessity for fingering money by parents and friends. Could it not be arranged that the funeral expenses shall be paid by the insurance company or club? It is the amount of margin above this necessary expense which leads to so much evil, either in eating and drinking at the funeral, or even as an inducement to crime. The matter is one well worthy of consideration by philanthropists.

THE LOCAL GOVERNMENT BOARD AND MEDICAL SALARIES.

IT is unsatisfactory to see the Local Government Board refusing its consent to a rise in the salary of a medical man when the Board of Guardians was all but unanimous in recommending an increase. Mr. Hackett, of Gorton, has a salary of £60. In applying to the guardians for an increase he gives the following account of a year's work:—1. Visits to patients' houses, 2698. 2. Bottles of medicine, &c., 1585. 3. Attendances on patients coming to the surgery, 869. He reckons the cost of drugs at £34, leaving £26 as remuneration for brain-work, education, time, and all that constitutes medical service. Taking only the visits to patients' houses into account, this gives a payment at the rate of something less than 3*d.* a visit. No wonder that every guardian but one voted for raising the salary from £60 to £100. But it is a very great wonder to see the Local Government Board objecting on the ground that Mr. Hackett accepted the responsibilities of the office twelve months since on the present terms. The answer is that the duties have increased since then, and that the severity of them was not then realised. We are glad to see that the guardians intend to make further representations to the Local Government Board, whose decision seems to us very illiberal. It will be bad times with Poor-law medical officers if the Board lags behind the boards of guardians in its estimation of medical service.

FEVER IN LONDON.

ONLY 110 cases of scarlet fever and 14 cases of enteric fever were admitted into the hospitals of the Metropolitan Asylums Board during last week; not a single case of small-pox being removed during this period. The number of deaths from diphtheria deserves notice; during the present year, for some weeks they have been above the average, but they have now, during the week ended Feb. 11th, reached 40 in London, the corrected average for that week being 16·5. There does not appear to have been any special incidence upon any one district, and no organisation exists for inquiring into a prevalence which affects the whole metropolis.

NEWSPAPER LIBEL BILL.

THE Bill for the Amendment of the Law of Libel in the interest of newspaper reporting, which was last year brought in by Sir Algernon Borthwick and other members of Parliament connected more or less directly with the press, has been re-introduced this year, and its promoters have been fortunate enough to secure an early date for the second reading. This is to be taken on the 28th inst., and if the consent of men representing different parties affords any pledge of success it ought to go through. It bears the names, in addition to that of Sir A. Borthwick, of Sir Albert Rollit and Mr. Jennings, who represent the present parliamentary majority; while Mr. Lawson, Dr. Cameron, Mr. John Morley, and Mr. E. Dwyer Gray stand sponsors for it in the Liberal interest. Judged by the merits of the Bill, its prospects of success should be equally good. Its general scope may be described as an enlargement of the doctrine of privileged publication to include all fair and accurate reports of the proceedings at any public meeting or meeting of an official or public body, a simplification of the proceedings in defence in a libel action, and a limitation of the amount recoverable as damages to the amount of the injury which a plaintiff can show that he has actually sustained. This is manifestly the barest justice to defendant newspaper proprietors, and it is not very creditable to British jurisprudence that the law should still at this date stand in need of amendment to bring it into tolerable accord with the public conscience. Yet so it is, and we are even now dependent upon the enterprise and success of half a dozen private members of Parliament for this most necessary boon. We cordially wish them a prosperous issue to their undertaking.

METROPOLITAN WATER SUPPLY.

THE Grand Junction Waterworks Company are promoting a Bill in Parliament for the purpose of obtaining powers to construct certain works in the parish of Dornay, a short distance above Windsor, to draw a supply of water from the Thames at that spot, it being supposed that water of greater purity may be obtained there than at the company's present intake. The company have power to draw from the Thames, by means of these works, twenty millions of gallons of water daily, but they are not to take a larger quantity than they are authorised by existing Acts. It is understood that the chief reason for going so far away to obtain a supply is that a vast expense will be saved in the cost of filtration. At the late Quarter Sessions for Bucks, the chairman, the Duke of Buckingham, drew attention to the Bill, and to the serious reduction of the Thames which the subtraction of such a large quantity of water would entail. The Windsor Corporation, who are about to acquire the Windsor and Eton Waterworks by compulsory purchase, have petitioned against the Bill, the chief ground of opposition being the fear that the Grand Junction Company may bore into the chalk and tap the supply now obtained by the Windsor Company. The Urban Sanitary Authority of Eton has also petitioned against the Bill.

From the report of Messrs. Crookes, Odling, and Tidy on the composition and quality of daily samples of the water supplied to the metropolis for the month of January, it appears that throughout the month the condition of the water furnished by the various companies taking their supply from the Thames and the Lea continued to be unquestionably excellent. The quantity of organic matter present was very small, exceptionally small for the period of the year.

UNITED FRACTURE OF TOOTH-FANGS.

DR. WILLIAMSON, the President of the Odonto-Chirurgical Society of Scotland, exhibited recently an interesting case of fracture of the root of a central incisor, which bore evidence of having been united. There was a history of a blow in childhood, from which the right incisor received so much injury that its pulp died, as shown by its discoloured appearance. But both teeth had done good service until the patient reached the age of forty-five, when the left central became so loose that it was removed with the fingers. A part of the fang, however, was left behind; but, being loose, was easily extracted. On examination, it was found that the two fragments fitted accurately when placed in apposition, except where there was a little chipping at one edge. The fracture of the dentine was at a higher level than that of the cementum, so that the latter formed a sort of collar for the lower fragment. There was some thickening in parts of the cementum, and the whole of the pulp in the coronal fragment was calcified, and also the part close to the line of fracture in the other piece Whether there was any cemental tissue coating over the fractured surfaces, as in one of Weld's cases, was uncertain, since the specimen was not subjected to microscopical examination. Hohl, Tomes, Hyrtl, and others have altogether collected only about a dozen cases of united fractures in human teeth, and several have been met with in the tusks of animals. There seems no physiological reason why these cases should be so rare for new cementum is

capable of being formed at any period of life, and it is no uncommon occurrence for the pulp to resume its formative functions long after the cessation of regular calcification. Tomes points out that probably the difficulty of diagnosing fracture of the root leads to improper treatment, which does not give nature a chance. Moreover a blow sufficiently violent to cause fracture would generally injure the pulp, and bring about its destruction.

THE POLLUTION OF THE IRWELL.

THE Salford Corporation having commenced proceedings, under the Rivers Pollution Prevention Act, 1876, against the Prestwich Local Board for polluting the Irwell by sewage, an inquiry has been held by Mr. Thornhill Harrison, C.E., to hear an application from Prestwich as to a suspension of proceedings for twelve months, so as to give them time to effect certain works that have been decided on. The Salford Corporation stated that since they, as conservators of the river Irwell, were spending some £250,000 in order to prevent the pollution of the river by sewage, they felt bound to take proceedings against the authorities of surrounding districts who contributed to the pollution; but they had no wish to be arbitrary against any authority giving a genuine undertaking to push forward at once with the necessary remedial works. Under the circumstances, Mr. Harrison undertook to advise the Local Government Board to suspend the Act for six months as regards the Prestwich district, and if at that date it was found that the proposed works were being rapidly proceeded with, a further extension of time might be granted. This indication of a determination to free at least one of our northern streams from the filth which has so long characterised both it and many others flowing through manufacturing districts, is very welcome; and we trust it is the beginning of some general action in this direction in many parts of the country.

ALLEGED HOSPITAL NEGLECT.

IT is too much the tendency of a certain section of the press of the present day to find occasion to bring charges against hospital officials; the house surgeon is the person on whom the chief attack falls, and thus to his already anxious duties are added further anxiety and annoyance at seeing unfounded charges brought against him in public. In a recent case of this kind, which we have just investigated, the friends are alleged to have made the following complaints. That the patient was kept on a bench in a room of St. Thomas's Hospital for an unnecessarily long time, as the house surgeon thought he was drunk, of which there was no evidence, the man being a sober man; that he fell off the bench for want of care on the part of the hospital officials; that he was improperly treated when in the hospital. The patient was a cabdriver, aged twenty-two, and was taken to the hospital, it being said that he had been thrown from a cab. He was in a semi-conscious condition, but able to speak when roused. Two house surgeons, both experienced, saw him, and considered that he smelt of drink, and should be watched for a time to see if he would become fit for removal home. He was left in charge of his brother, who appears to have gone away soon afterwards, and any fall which the patient may have had must be put down to his negligence. As the patient did not improve, he was sent to the accident ward. Three days afterwards he died, not having recovered consciousness. At the post-mortem examination it was found that there had been a simple fracture of the vault running into the posterior fossa, attended by surrounding hæmorrhage. When we mention that he was seen by the surgeon, assistant surgeon, and house surgeon, it is not necessary to give any reply to the statement that appropriate treatment was not employed. Fractures in the posterior fossa of the skull present the greatest difficulty in diagnosis, especially when there is a question as to drink, and it is often impossible to diagnose the injury until some time after the infliction of the damage. Hospitals have surely the right to employ the means at their disposal to prevent imposture, and to the house surgeon should be left the right of exercising his discretion as to the means of ascertaining the condition of patients presenting themselves for treatment. It is in cases of this kind that the question "Drunk or dying?" most frequently arises, and it is well when the patient receives such careful attention as in this instance.

ANGIOMA OF THE EPIGLOTTIS CAUSING HÆMOPTYSIS.

DR. C. M. DESVERNINE describes in a Cuban medical journal a case of repeated hæmorrhage from the mouth occurring in a healthy man of fifty-three, the cause of which was for some time obscure. On making a laryngoscopic examination, an ovoid tumour measuring two centimetres by one was found attached by a peduncle to the laryngeal aspect of the epiglottis. The tumour appeared to be lobulated, and was of a violet colour. From the history of the hæmorhages, taken together with the colour and general appearance of the tumour, Dr. Desvernine diagnosed it as an angioma, and decided to remove it by means of the galvano-cautery. This was accomplished without difficulty, the pharynx and larynx having been previously anæsthetised by means of a strong solution of cocaine. An examination of the tumour showed it to be a pedunculated and encapsuled angioma.

THE RIVER TYNE PORT.

IN his annual report on the river Tyne port, Mr. Henry Armstrong shows the continued usefulness of the floating hospital which has recently undergone such substantial improvements, and the record of sanitary work indicates the precautions taken to prevent any infectious disease from entering the country by way of the shipping in the port. No less than 13,045 vessels were inspected during the year, and 556 notices were given as to improvements needed. It may be noted here that the Local Government Board printed Mr. Armstrong's report of 1886 in the last issued volume of their medical officer, as a typical example of what such reports should be; and the reproduction has the advantage of including two lithographs showing the most recent floating hospital for infectious diseases that has been erected in this country.

PERILS OF MEDICAL MISSIONARIES.

MISSIONARIES have usually found that an acquaintance with medicine, and the ability to perform what to natives are most marvellous cures by means of operations, are certain passports in countries where a mere teacher of religion would be in constant danger of being murdered. The lives of Livingstone and many other medical missionaries are examples of this. Even in China, where superstition and hatred of foreigners are at a very high level, medical missionaries have managed to win their way to the confidence of the people in a most remarkable manner. At times, however, there are outbursts of fanaticism, promoted probably by the native medicine men, who in all countries are the most virulent opponents of the introduction of European science. One of these has lately occurred in Foochow. Its immediate cause was the prompt action of one of the medical staff in a case of hæmorrhage, in disregard of the native superstition, according to which he ought to have delayed until the patient's friends

had finished consulting the gods in the joss-house. As it was, he was unfortunately too late to save the man's life. The enraged Chinamen dogged him from place to place, determined to boil him to death in oil, and had it not been for the courage of some of the converts this would probably have been his fate. As there is a great tendency to wait until the patient is almost moribund before applying for the help of the foreign doctors, it is not surprising that operations frequently fail. It is terrible to think that an unsuccessful operation may result in the murder of the operator. There are, however, signs that China is moving, and the time is probably not very far distant when those who have devoted their lives to the elevation, physical, mental, and spiritual, of the superstitious Chinese will see some fruit of their self-denying labours.

PAYMENT IN THE JARROW INFECTIOUS HOSPITAL.

THE Town Council of Jarrow have been discussing the question of compulsory payment by patients whose removal to hospital has been effected in order to protect the public against the risk of infection. Such payment can, in certain cases, be legally enforced, but, as we have often contended, a sanitary authority sadly mistakes its vocation as protector of the public health where it so acts as practically to attach a penal clause to orders for admission into hospital. Where separate accommodation and special advantages are demanded by the sick, payment may reasonably be required; but ordinary patients should be encouraged to go into hospital and not be deterred from it, otherwise it is difficult to understand why the institution should have been provided by the community for its own purposes.

THE LAY PRESS AND THE PROFESSION.

WE sincerely regret to have occasion to find fault with our genial and ever-welcome contemporary *Mr. Punch*, who, in the kindliness of his heart and the exuberance of his wit, has this week committed himself to a bold advertisement of two members of our profession, which we are sure they would be the first to deprecate. Although we cannot reasonably expect *Mr. Punch* to be conversant with all the details of medical ethics and the latest expressions of opinion of the Colleges of Physicians and Surgeons on the subject, we should have thought that his well-known good taste would have restrained him from a notice (humorous though it be) of a medical work by one medical man, and an injudicious laudatory allusion to another member of our profession. *Mr. Punch* will, we are sure, on reflection, agree with us that such "Lenten Discourses" *are* "Purely Professional," and, so far as his columns (and those of the lay press generally) are concerned, entirely out of place.

DEATHS OF EMINENT FOREIGN MEDICAL AND SCIENTIFIC MEN.

THE deaths of the following foreign eminent medical and scientific men are announced:—Professor Ernest Leberecht, Director of the Medical Clinic at Leipsic. Dr. Leberecht was appointed Professor of Pathology and Pathological Anatomy in 1862, and after Wunderlich's death was given the post of Director of the Medical Clinic. He was editor of the *Archiv der Heilkunde*. His main work, which was written in conjunction with Uhle, was the "Manual of General Pathology," a work which has already passed through seven editions.—Senhor Francisco Lopes da Cunha Pessoa, Director of the Portuguese Military Hospital of Estrella, near Lisbon.—Dr. Manuel Luiz Machado, a distinguished Portuguese physician.—Dr. Don José A Periut, Lecturer on Anatomy in Havana.

HEALTH OF THE CROWN PRINCE.

THE following telegram from San Remo was received at THE LANCET Office at 6.30 P.M. on Wednesday:—

"The patient is much better; no disposition to bronchitis or pneumonia; former staining of phlegm due to irritation of cannula, which has now nearly ceased; laryngeal obstruction greatly diminished."

The Prince had, we learn, during the night of the 21st inst. more continuous sleep, and on waking up on the 22nd was free from pain. The wound is now healed up, all but the opening for the cannula. Should the weather improve, it is intended to allow his Imperial Highness to take out-door exercise in a few days' time. According to our latest intelligence the weather is at present cold and unsettled.

A WATER FAMINE IN WINTER.

LIVERPOOL and BOOTLE are suffering from a veritable water famine. For some weeks past both have been placed upon half-service. Now even this supply is reduced to three hours' service in the morning and three in the evening, or six hours in the twenty-four. It must be some time yet before the new supply can come from Vyrnwy, and meanwhile, unless an increased rain or snow-fall fill the reservoirs at Rivington Pike, the present source of supply, the look-out will be very serious indeed.

THE LATE SIR GEORGE BURROWS.

WE understand that a committee has been formed of Fellows of the College of Physicians and others, for the purpose of obtaining, with the consent of Sir Frederick Burrows, a replica or copy of the portrait of his late father, Sir George Burrows, painted by G. Richmond, R.A., to be presented to the College, and that a subscription will be entered into for carrying out this intention.

INFECTIOUS HOSPITAL FOR CHICHESTER.

THE erection of a hospital for infectious diseases in Chichester has long been under consideration, some of the delay being due to complaints as to the unfitness of the proposed site. The Local Government Board have now informed the complainants that they do not see sufficient grounds for withholding their assent to the proposed scheme, and that they have, in consequence, forwarded to the Town Council a formal sanction for the loan required.

A POST-GRADUATE COURSE FOR DENTISTS.

WE understand that final arrangements have now been made for the establishment of a post-graduate course, to be held next April at the Dental Hospital, Leicester-square. The course will consist of lectures and demonstrations by members of the staff, and will be open to all registered practitioners. The aim of the promoters of this course is to make it as practical and comprehensive as possible.

THE CANCER BACILLUS.

THE discovery of the cancer bacillus threatens to have as many claimants as the authorship of Junius's Letters. In addition to Dr. Scheuerlen, who was the first before the public, two Italians announce themselves as having independently made the discovery—Dr. Barnabei, Professor of Clinical Medicine at Siena, and Dr. Sanarelli, a graduate and teacher of the same school. But, it seems, a compatriot of Scheuerlen is also in the field to claim priority in the discovery—Dr. Schill. France, too, not to be outdone, has her special claimant in Dr. Perin. And, finally, Brazil, in Dr. Domingos Freire, seeks to vindicate the honour of the discovery to the New World.

THE CHAIR OF BOTANY AT EDINBURGH.

As we go to press we learn by telegram that the coveted post of Professor of Botany in the University of Edinburgh has been conferred on Professor Bayley Balfour of Oxford.

LIVERPOOL HOSPITAL SCHEME.

THE Liverpool Corporation have made an effort to extend their system of infectious hospital provision by endeavouring to secure a lease of a portion of the Parkhill estate, but it has been refused them on account of possible development of the docks, which required the retention by the dock estate of a considerable width of land along the river side.

FOREIGN UNIVERSITY INTELLIGENCE.

Besançon.—M. Saillard, Professor of Clinical Surgery, has been appointed Director of the Medical School.

Göttingen.—Dr. E. Meier of Marburg has been appointed Curator of the University.

Konigsberg.—Professor Quincke of Kiel having declined the invitation to the chair of Special Pathology and Therapeutics vacated by Professor Naunyn, who has gone to Strassburg, the chair has been offered to Professor Strümpell of Erlangen.

Lisbon.—Two new professorships are to be established in this medical school: one of General Anatomy and Histology, the other of Ophthalmology. For the latter chair the name of Dr. Gama Pinto, who has studied at Heidelberg, is mentioned. The creation of a third new chair—viz., that of Neurology and Diseases of the Mind—is being pressed on the Legislature by Senhor Antonio Candido.

Oporto.—A Professorship of General Anatomy and Histology is about to be established.

Padua.—Dr. Brunetti, Professor of Pathological Anatomy, has been suspended by the Government on account of animadversions against his colleagues.

THE Honiton guardians, on the plea of the depression in trade and agriculture and the consequent inability of the ratepayers to meet the demands made upon them, have resolved to ask the medical officers non-resident in their districts to accept a reduction of 10 per cent. in their salaries, and notice of motion was given that, in case of their not agreeing to this curtailment, application should be made to the Local Government Board for consent to make the reduction. It would be interesting to learn if a similar measure had been meted out to other officers of the Board.

AT the Brompton Hospital for Consumption the following lectures will be delivered by Dr. Theodore Williams:—Feb. 29th: "Bronchial Asthma; its Etiology and Pathology." March 7th: "On the Modern Treatment of Bronchial Asthma." March 14th: "On the Uses of the Pneumatic Cabinet in the Treatment of Lung Disease." These lectures, as all lectures for the future, will be given in the Recreation Theatre of the new hospital, instead of in the Board Room as formerly.

ACCORDING to *O Correio Medico de Lisboa*, the Portuguese Government has in preparation an important scheme for improving the position of the surgeons in the army. The details have not yet been made public, even if they are settled, and somewhat conflicting statements have appeared in the press on the subject.

THE Cavendish Lecture, to be delivered before the West London Medico-Chirurgical Society, will be given by Sir William Stokes on June 1st.

AT a meeting of the Wigan Medical Society held on Feb. 16th, 1888, the following resolution was unanimously passed: "That it is inadvisable amongst members of the medical profession to issue circulars or to use a systematic canvass for club appointments."

THE first number of a new publication entitled the *Brooklyn Medical Journal* has just come to hand. It contains some valuable papers, notably one on an Interchangeable System of Metric Measures, by Dr. John H. Hughes, and bids fair to have a successful career.

Messrs. E. H. Busk, J. Anstie, Q.C., and H. A. Nesbitt have been duly nominated as candidates for the vacancy in the Senate of the University of London, caused by the death of Sir G. Burrows, Bart. The date for the election is fixed for March 6th.

WE understand that Mr. H. H. Clutton has resigned his appointment as surgeon to the Ear department of St. Thomas's Hospital. Of course, this step does not affect his position as senior assistant surgeon to the hospital.

HEALTH OF THE NAVY.

THE Statistical Report on the Health of the Navy for 1886, drawn up, as in former years, by Deputy Inspector-General W. H. Lloyd, shows the average force afloat to have been 46,770 officers and men. The cases of disease and injury among them amounted to 47,816, the deaths to 322, of which 86 were from injuries and accidents, the number discharged the service by invaliding to 873, and the mean daily sick to 2044. These numbers give the proportion of 1022 cases, 6·88 deaths, 18·67 discharges, and 43·71 constantly sick per 1000 of strength, all lower than in the preceding year. The death-rate is under that recorded in all the last thirty years with the single exception of 1883, when it was only 5·88 per 1000. Of the accidental and violent deaths 48 were by drowning, and 6 were suicidal.

On the Home Station, in a force of 21,800, the cases were in the ratio of 814, the deaths of 6·97, the invaliding of 27·33, and the daily sick of 42·3 per 1000 of strength. The cases and mean sick were lower, but the deaths 2·21 per 1000 higher than in 1885; the invaliding was nearly the same in both years, but the number of invalids finally discharged is not stated for either period. The increase in the death-rate occurred chiefly in fevers and diseases of the lungs, and of the circulatory and nervous systems. Owing to the adoption of the revised nomenclature of diseases there is considerable difficulty in making a correct comparison of the influence of particular diseases with the results of preceding years. This is especially the case with phthisis, which was formerly included under tubercular diseases, but is now divided between that group and diseases of the respiratory system, a very large proportion of the cases being included in the latter class under the name of pneumonic phthisis. To remove as far as practicable this difficulty, we shall in our remarks combine the two classes under the general term of *lung disease*.

During the spring measles prevailed in an epidemic form in the *Lion* training ship at Devonport, and the *St. Vincent* at Portsmouth, 26 cases having occurred in the former and 28 in the latter; all of them recovered. Forty-three cases of enteric fever with 10 deaths were reported. Of these, 6 cases and one death occurred in the *Impregnable* at Plymouth, where the disease was very prevalent on shore; and 14 cases with 3 deaths in the *Vernon*, *Asia*, and *Excellent* at Portsmouth, under similar circumstances. In none of the cases could the disease be traced to defective sanitation on board ship. There were 9 cases of diphtheria, of which 6 terminated fatally; 5 of them, with 2 deaths, were in the *Ganges* training ship at Falmouth, 2 fatal cases in the *Lion* at Devonport, one boy from the *Martin* training brig died in Haslar Hospital, and one in Portland sick-quarters from

the *Boscawen*. The last two appear to have contracted the disease while away from their ships on leave; in none of them could anything wrong in the sanitary condition of the ship be detected. Forty-eight cases of erysipelas, with 2 deaths, and 2 fatal cases of pyæmia were returned; "the erysipelas was, as usual, chiefly among the boys in the training ships"; no indication is given of the probable cause of the disease. The admissions by lung disease accord very closely with those of 1885, but the deaths were ·80 per 1000 higher. Of the latter, 22 were recorded as pneumonic phthisis, and 1 from hæmoptysis, giving a rate of 1·05 per 1000. "The largest number of the graver forms of acute chest disease were, as usual, from the boys' training ships." An inquiry has been instituted into the causes of this greater prevalence, and a series of recommendations been made embracing reform in the system of clothing, and many points in the routine of washing clothes, dry decks, &c., which, "if fully carried out, will probably produce most beneficial effects in this respect." Under the class of injuries 21 deaths were recorded, of which 13 were by drowning and 3 by falls from aloft. There was only one suicidal death, that of a marine who shot himself.

The average strength in the Mediterranean during the year was 5900; the cases of disease and injury were in the ratio of 1157, the deaths 7·28, the invaliding home 55·93, and the constantly sick 45·41 per 1000 of strength. These are all considerably lower than in the preceding year, and also under the average of the last ten years. There were 51 cases, with 11 deaths, of enteric fever, being in the ratio of 8·64 and 1·86 per 1000; but of these, 10 cases and 3 deaths are stated to have been traceable to Alexandria. Of the other cases, 14, with 3 deaths, occurred in the beginning of the year, and were considered to have been the last cases of the epidemic which prevailed in the end of 1885, and which was attributed to the impure water supply. In the middle of July a new water supply for Valetta came into use, which, with the improved drainage, will, it is hoped, secure an immunity from epidemics of this disease. Malarial fevers were considerably less prevalent than in the preceding year; one-third of all the cases occurred in the *Alexandra*, and, in the opinion of the fleet surgeon in charge, "the fever-producing influence is in the ship herself." The mortality by lung disease amounted only to ·84 per 1000, which is slightly lower than in 1885, and the invaliding shows a reduction of more than one-half. The deaths from injuries, including 2 suicides, amounted to 2·35 per 1000—considerably in excess of the preceding year. If these be deducted from the total deaths, the ratio would be only 4·93 per 1000 of the strength by disease.

On the North American and West Indian Station the strength was 2600; the cases amounted to 1153, the deaths to 11·15, the invaliding to 30·38, and the mean sick to 37·1 per 1000. With the exception of the mean sick, these ratios are all considerably higher than in the preceding year, but the increase in the deaths was caused by the swamping of a boat at Port Royal on a stormy night, when 14 men out of 19 on board were drowned. Deducting these, the deaths from all causes would amount to 5·78 per 1000, or slightly under the average. Fifteen cases of yellow fever, with 2 deaths, occurred in January on board the *Urgent* at Jamaica. They were considered to have been a continuance of the epidemic which commenced in the preceding November. When the disease had subsided the ship was cleared out and thoroughly disinfected, and no case afterwards occurred. There were 4 deaths by injuries in addition to the 14 by drowning already noted.

The force employed on the South-east Coast of America Station was only 470 strong. The admissions were 1100 per 1000 of strength; there was only one death, from pneumonic phthisis, 11 men were invalided, and the mean sick amounted to 36·25 per 1000. There was nothing in the character of the diseases to call for special remark.

On the Pacific Station the average strength was 1430; the cases amounted to 1026, the deaths to 1·39, the invaliding to 34·96, and the daily sick to 44·81 per 1000. Compared with the results of 1885, there was a slight increase in the number invalided, but a reduction in the other particulars. In the autumn there was a considerable prevalence of continued fever, complicated in some cases with a severe form of pneumonia, on board the *Triumph* at Esquimalt. The medical officer attributes this "to the condition of the water in Esquimalt Harbour during the summer months. He describes the water as being of a thick reddish colour, with a distinctly unpleasant odour, with a quantity of rotting driftwood and seaweed floating in it; the shores smelt very badly at low water. The water, food, and hygienic conditions of the ship were otherwise excellent." Venereal disease was also very prevalent, contracted chiefly at Coquimbo, "which appears to grow yearly worse in this respect.....If this port were less frequented by ships much of the sickness and invaliding of the station would be avoided."

The mean force on the West Coast of Africa and Cape of Good Hope Station was 1700; the cases were 1093, the deaths 7·05, the invaliding 24·11, and the daily sick 33·78 per 1000. The deaths were somewhat higher, but the invaliding and daily sick lower, than in 1885, and all were considerably under the average of the last ten years. The cases of malarial fevers, amounting to 187 per 1000 of strength, were, to a great extent, the consequence of an expedition up the Niger in the last quarter of the year. "From the experience of these expeditions during the last few years, it is evident that quinine, which has been faithfully and fully tried, exercises no power whatever as a preventive against these fevers of the African rivers, nor does its prophylactic use appear to have modified the severity of the attack; and this inference is borne out by the record of the last thirty years. An interesting experiment is now being tried on this station as to the effect of arsenic as a prophylactic, its power as such being highly spoken of in the Italian malarious districts. In future expeditions up the river, half the party will receive quinine as at present, and the other half an arsenical solution in regulated quantities, the effects being noted."

The average strength on the East Indies Station was 1930; the cases of disease and injury were in the ratio of 1529, the deaths of 8·81, the invalids sent home of 71·50, and the daily sick of 50·29 per 1000. The deaths were much under, and the invaliding above, the proportion in 1885; while the cases and the mean sick show a slight decrease. The reduction in the death-rate has been chiefly in fevers and diseases of the digestive system; there has been a slight increase in the deaths by lung disease. There were only 4 cases of enteric fever, with 3 deaths; 2 deaths occurred at Bombay, and the other fatal case at Trincomalee. There was nothing which seems to call for a special remark regarding the prevalence of disease, except that by the judicious action of the medical officer of the *Briton* her crew were not transferred to the *Auckland* hulk during repairs of their own vessel, on the ground of the great prevalence of fever in 1884 on board that hulk and of her present insanitary condition. The men remained on board the *Briton* in dock, with very satisfactory results as regarded their health.

On the China Station the strength was 3700; the cases were 1349, the deaths 8·11, the invaliding 17·29, and the daily sick 51·99 per 1000, the first three being under, and the mean sick above, the ratios in 1885, but all below the average of the last ten years. There were 5 cases of enteric fever, with 3 deaths; 2 fatal cases at Hong Kong; 2, of which one was fatal, at Nagasaki; and one at Shanghai. There was only one case of cholera, which occurred at Shanghai in November, and terminated fatally There were 9 deaths from injuries, 2 by the premature explosion of a gun at target practice, 2 by the premature explosion of a Nordenfelt gun, 2 by drowning, and 3 by fractured skull from accidents.

On the Australian Station the force averaged 1540; and there were 1491 cases, 9·74 deaths, 20·77 invalided, and 53·56 constantly sick per 1000 of strength. Except the invalided, these ratios are all much higher than in the preceding year, and than the average of the last ten years. The increase in the cases has been chiefly in malarious fevers, diseases of the connective tissue and skin, those of the digestive system, and gonorrhœa; and in the deaths, by those from fevers and from injuries, the proportion caused by the latter being 5·18 per 1000. There were 11 cases of enteric fever and 3 deaths, all but one believed to have been contracted at Sydney or in the neighbourhood, including the dock at Cockatoo Island. "The condition of Cockatoo Island ..... has long been a scandal, and from time to time much sickness has apparently been caused by it. However, during the present year a determined attempt has been made at a reformation, and the last accounts state that the most glaring of the insanitary conditions have been removed." The malarious fevers, amounting to 101 per 1000 of strength, were contracted chiefly in surveying the coast of New Guinea and during a cruise among the Solomon Islands; a considerable number of the officers and men had also served previously on the west coast of Africa, where they probably

contracted a liability to these diseases. There were 8 deaths from injuries; of these 3 were by drowning, 2 by the premature explosion of a gun while firing a salute, one by a fall from a scaffold, one by a fall from a loft, and an officer by the accidental discharge of his revolver.

The strength of the irregular force was 5700, among whom the cases were 1081, the deaths 3·68, the invalided 21·4, and the mean sick 43·38 per 1000. The ratios cannot fairly be brought into comparison with those of the preceding year, when a portion of the force was employed on the Nile expedition. There were 29 cases of enteric fever, with 3 deaths; of these 13 were on board the *Sylvia*, surveying vessel, and were believed to have contracted the disease at Gibraltar, the water there being considered as the probable cause. Of the 21 deaths in the force, 9 were under the class of injuries—7 by drowning, and 2 by suicide.

In addition to the force afloat, there were 6150 marines at headquarters, among whom the cases amounted to 1030, the deaths to 4·39, the invalided to 51·86, and the daily sick to 54·27 per 1000, all of them lower than in the preceding year, but, with the exception of the deaths, considerably above the average of infantry serving at home. There appears to be a marked difference in the health of the various Divisions, the admissions having ranged between 1327 in the Royal Marine Artillery, Eastney, and 753 at Chatham; the deaths, from 5·24 at the Walmer Depôt, to 2·76 in the Portsmouth Division, Royal Marine Light Infantry; and the average daily sick, from 66·34 at Eastney, to 33·09 at Walmer. The causes of these differences appear to be worthy of investigation.

In the present volume the loss to the service by the discharge of invalids is stated for the whole service. It would be advantageous if this were also done for each of the naval stations. At present the numbers sent home as invalids are alone given. The addition to the tables of a column with the numbers discharged from the service would add to the value of the report by showing the final loss by this cause from each station.

PROFESSOR OERTEL ON DIPHTHERIA.[1]

I.

WE have already noted the appearance of a very important contribution to the pathology of diphtheria which has just been made by Professor M. J. Oertel of Münich, and now propose to give a somewhat detailed abstract of the monograph, rather than to attempt a condensation of his argument as might fail to do justice to it. It is admitted that the nature of diphtheria is by no means fully explained, in spite of the attention it has received since the days of Bretonneau. That its phenomena can be attributed to the implantation of a specific microbe upon mucous membranes, and the absorption of the ptomaines generated by the growth of the parasite, although plausible, lacks that basis of support which would be derived from a concurrence of opinion among bacteriologists as to the identity of the diphtheritic microbe. Oertel himself was among the first to suggest that the process in diphtheria might be referred to the action of bacterial organisms. This was more than twenty years ago, and now he himself thinks that more light is to be gained upon the pathogeny of the disease by a profound and careful study of its histological characters. It is this to which attention is chiefly devoted in the treatise under notice.

This study is preceded by a review of the leading work that has been done to elucidate the nature of diphtheria. In 1847 Virchow distinguished between the diphtheritic exudation into the substance of a mucous membrane and the croupous exudation upon its surface, which, moreover, unlike the diphtheritic, could be detached without injury to the mucous membrane. Nearly forty years later (1885), Virchow, speaking on the same subject, declared that necrosis is the distinctive feature of the diphtheritic process, so that the detachment of its false membrane is invariably accompanied by ulceration and loss of substance of the mucous membrane. Obviously no light was thrown upon the disease diphtheria by recognising these distinctive types of inflammation, since both these types are to be found in the same disease, their character being determined by local conditions, and not by the specific poison. Many observations have been made upon the structure of the false membrane in diphtheria, to a peculiar, fibrinous metamorphosis of epithelial cells. Wagner attributed it—both the croupous and diphtheritic—and he excluded necrosis and exudation from the form of inflammation occurring in epidemic diphtheria. Oertel, Recklinghausen, and others, whilst recognising the change described by Wagner, could not agree with him in excluding fibrinous exudation from a share in the false membrane. They described the cellular transformation as hyaline; and later Cohnheim, following up Weigert's views, defined the peculiar changes in diphtheria as belonging to the class of coagulation-necrosis. These doctrines, whilst explaining the formation of the false membrane, also led to the notion of antecedent change before the membrane is formed, and thereby supported the idea of general infection as distinguished from the view that diphtheria is primarily a local disease. Buhl described the local process as involving the whole mucosa, necrosis being preceded by proliferation of connective-tissue cells and nuclei, producing what he termed a "diphtherial infiltration," which he compared with similar lesions in typhoid and syphilis, and found, moreover, widely spread through various organs. Even diphtherial paralysis could be ascribed to a like infiltration of nerve-roots and nerves. Indeed, Buhl seems to have thought that the virus was inhaled, and that it induced these changes universally in the body. It was about this time that Oertel found a micrococcus in the false membranes and tissues, and described the disease as being primarily bacterial and localised in the pharynx. But neither these discoveries nor the later bacteriological work of Loeffler threw light on pathogenesis. Bizzozero pointed out that the lymphoid tissues in diphtheria were markedly prone to be involved, especially the spleen, intestinal follicles, and mesenteric glands, which were swollen by increase of cells, fatty and albuminous granules; and he inferred that the process initiated in the lymphoid tissue of the tonsils was particularly prone to extend to other seats of this type of tissue. This, however, merely bore out the admitted clinical fact of the proneness to involvement of lymphatic tissues. The discovery by von Recklinghausen and his pupils of hyaline degeneration in diphtheria was of some importance. For this metamorphosis is known to occur in the walls of blood-vessels under many conditions of impaired nutrition, as well as in other infectious diseases. It is strictly of the class termed by Weigert and Cohnheim a "coagulation-necrosis," and can be reasonably ascribed to the operation of the virus of diphtheria. Peters, who worked largely at this subject, found this hyaline change in the vessels—especially the arteries and lymphatics—of the pharyngeal mucosa, tonsils, larynx, and trachea; in lymphatic glands; in the basement membrane and epithelium. Other contributions to the histology of diphtheria have been made—as to myocarditis, by Birch-Hirschfeld, Rosenbach, and Leyden; as to nephritis, by Wagner, Fürbringer, Fischl, and Weigert; in nerves and spinal cord by Meyer: all of value in explaining certain clinical symptoms, but not throwing much light upon pathogeny. As to bacteriology, the results are too contradictory to be of much value; for the inquiry has been concerned mainly with attempts to excite diphtheria in animals by inoculation. But the false membrane *per se* is not the sole distinctive lesion of diphtheria; similar false membranes may be produced by corrosives and irritants; and because the implantation of diphtherial membrane or of bacterial cultures upon a mucous membrane leads to the formation of a false membrane, it does not follow that the specific virus is transmitted. The disease must be studied as a whole, and not merely in one of its local manifestations; and therefore Professor Oertel thinks it necessary that we should seek first to study it from the pathological side before venturing to draw conclusions from bacteriological experiments.

[1] Die Pathogenese der Epidemischen Diphtherie, nach ihrer histologischen Begründung. Von Dr. M. J. Oertel. Mit Atlas. Leipzig: F. C. W. Vogel. 1887.

THE MANCHESTER DRAINAGE SCHEME.—A resolution confirming the purchase of ninety-five acres of land at Barton-on-Irwell, for the new sewerage scheme, was passed at a meeting of the Manchester City Council on Wednesday last. Authority was also given to apply to the Local Government Board for their sanction to borrow, under the powers of the Public Health Act, 1875, £450,000 for the purchase of land and the execution of the works.

ROYAL COLLEGE OF SURGEONS OF ENGLAND.

IT is much to be regretted that the Council of the College, when they forwarded their Reply to the Lord President of the Privy Council in answer to the statement presented to the Lord President on behalf of the Association of Fellows, did not also send with the Reply a copy of the resolution which was proposed as an amendment, and which expressed the opinion of a minority of the members of Council. From the printed copy of the Minutes of that meeting (held on Jan. 19th) posted in the Hall of the College, we find that a most important amendment was brought forward, which we now publish in full. The reply itself will be found in the issue of THE LANCET of Feb. 4th, p. 242. It was as follows:—

Moved as an amendment by Mr. Macnamara, seconded by Mr. Willett: "That paragraph 5 and all the succeeding paragraphs be omitted, and that in place thereof the following be inserted:—5. The Council desire to state they are in accord with the four resolutions passed at the meeting of Fellows and Members on March 24th, 1884, which are set out in paragraphs 9 to 12 of Mr. Pollock's statement to the Privy Council. 6. The Council believe that the authority and influence of the College would be enlarged and strengthened if the proposed Supplementary Charter contained clauses giving effect to those resolutions. 7. The Council are of opinion that the precedent established in 1843, when, in the Charter obtained in that year, provision was made for calling an annual meeting to elect members of Council, should be followed now that the Council have decided to call an annual meeting to which a report from the Council shall be presented. 8. Seeing that the practice of annual election of the President by seniority merely has ceased to exist, the present President being now in his third year of office, the Council are willing to consider whether the continuance of this altered custom should not be ensured by empowering the Fellows to elect the President and Vice-Presidents on some scheme of the candidates for these offices being nominated by the Council to the Fellows. Such a scheme, when settled, would require to be enacted in the Charter, as it would entail the calling of an annual meeting of Fellows. 9. The Council recognise the fact that, unless the calling of the annual general meeting of Fellows and Members, and the alteration in the custom of electing the President, are made obligatory by the terms of the Charter, there is a risk of these concessions becoming inoperative, inasmuch as at present their continuance depends only on the decision of the Council. 10. The Council regret that, when issuing a circular to the Fellows in 1887, with the object of obtaining their opinion on the questions of Members of the College being empowered both to vote at the election of members of Council and to be eligible for seats in the Council, they did not address inquiry to the Fellows with the object of learning their opinion as to the Fellows electing the President; but, seeing that during the four years the agitation of this subject has lasted no remonstrance from any Fellow has been received by the Council, it may be assumed the Fellows at large really desire this change. Moreover, it would appear inconsistent to speak of the Fellowship representing a higher grade than the Membership, and to admit the qualification of the Fellowship as an elective body for the membership of Council, and yet to doubt the capacity of the Fellows to elect their own President, or, if capable, to infer they are not to be trusted with the duty. The Council feel that this change will have the effect of approximating the constitution of the College to those of all the Royal Colleges of Physicians or of Surgeons in England, Scotland, and Ireland, in every one of which, under their Charters, the President is elected by the Fellows, and also in all of which, with one exception—viz., the Royal College of Surgeons of Ireland—the Fellows meet at stated periods in their respective Colleges to discuss and approve the acts of the Council." And the votes of the Council having been taken, the amendment was lost, two members only voting in favour thereof.

From the Minutes of the ordinary meeting of the Council held on Thursday, Feb. 9th, which are also posted in the Hall of the College, we find that it was moved as an amendment to a motion to confirm the Minutes by Mr. C. Heath, seconded by Mr. Bryant: "That the Minutes of the extraordinary Council on the 19th ultimo be confirmed, with the exception of the amendment to the reply from the Council to the Privy Council, moved by Mr. Macnamara and seconded by Mr. Willett, and that such amendment be expunged from the Minutes."

The votes of the Council were thereupon taken on this amendment; and on the demand of Mr. Willett and Mr. Macnamara the names of those voting for and against the same were directed to be entered on the Minutes—viz.: Minority for the amendment, 2: Mr. T. Bryant and Mr. C. Heath. Majority against the amendment, 17: Sir James Paget, Bart., Sir T. Spencer Wells, Bart., Mr. J. Marshall, Mr. E. Lund, Mr. H. Power, Mr. J. Hutchinson, Mr. W. Cadge, Sir Joseph Lister, Bart., Mr. J. Croft, Mr. S. Jones, Sir William Mac Cormac, Mr. G. Lawson, Mr. N. C. Macnamara, Mr. O. Pemberton, Mr. S. W. Sibley, Mr. R. Harrison, and Mr. Willett. Five did not vote: the President, Mr. T. Smith, Mr. J. W. Hulke, Mr. M. Berkeley Hill, and Mr. A. E. Durham.

The amendment was consequently lost.

Thus, not only were certain members of the Council opposed to the amendment to the Reply sent to the Lord President, but they attempted to suppress any official evidence that it had been brought forward. The minority reply, in our opinion, ought to have been forwarded by the Council to the Lord President.

MORTALITY IN DUBLIN AND OTHER IRISH TOWNS IN 1887.

THE Registrar-General for Ireland has just issued his Yearly Summary of the weeky returns for the city of Dublin during last year, which throws a good deal of light upon the constant and striking excess of mortality in that city compared with that which prevails in London and Edinburgh. The death-rate in Registration Dublin in 1887 was 30·5 per 1000 of the estimated population, against 19·6 in London and 19·8 in Edinburgh. The death-rate in the city proper last year was 33·2 per 1000, whereas in the suburbs the rate did not exceed 21·2. The death-rate in Dublin last year exceeded the rate recorded in any year since 1880, but the mean annual rate in the ten years 1877-86 was 29·6, showing that this waste of life in Dublin has, at any rate, been constant during the last eleven years. The death-rate in Dublin at each age-period is excessive, but especially large is the excess of mortality among children. The deaths of infants under one year of age was equal to 200 per 1000 registered births, while it did not exceed 158 in London and 137 in Edinburgh. The deaths among children under five years of age were last year equal to 102·9 per 1000 children estimated to be living at those ages, while the mean death-rate at those ages in London in recent years has not exceeded 63·0 per 1000. If we look to the causes of death, we find a general excess of mortality from all classes of diseases, but especially from diseases of the zymotic class. The death-rate from the principal zymotic diseases in Dublin last year was 5·21 per 1000, against 3·02 in London and 2·79 in Edinburgh. The most fatal zymotic disease in Dublin last year was measles, which caused a rate of 1·46 per 1000, more than double the average rate in Dublin, or the rate last year in London. The rate from diarrhœa was 1·30, and also considerably above the average; and the rate from scarlet fever (0·74) also showed a slight excess upon the average, and was considerably more than twice the rate that prevailed in London. The rate from "fever" was 0·54, and very considerably below the average rate in the ten preceding years, but more than three times the rate from this cause in London. It is noteworthy that, of 192 deaths from "fever" in the year, 24 were from typhus, 135 from enteric fever, and 33 from other and ill-defined forms of fever. The rate from whooping-cough was below the average, and that from diphtheria only slightly exceeded the average, both rates being considerably below those prevailing in London. Only one death from small-pox occurred in Dublin last year, and only 3 deaths from this disease have been registered in the city since May, 1881. The deaths from phthisis in the city last year gave a rate of 3·6 per 1000, the mean rate in London being 2·1; while the rate in Dublin from diseases of the respiratory organs was 6·2, against 4·4 in London. From whatever point of view the mortality statistics of Dublin be regarded, they afford the

most conclusive evidence of a health-condition which, in the present state of hygienic knowledge, reflects the strongest condemnation on the Dublin sanitary authority and on the ratepayers who elect them. Dr. Grimshaw publishes in this Yearly Summary a continuation of his interesting table of mortality in the various occupational or social classes of the Dublin population. His table shows that the death-rate in Dublin last year ranged from 14·5 per 1000 in the professional and independent class, to 38·2 in the general service class, including the deaths in workhouses. It is to be regretted that no attempt is made to correct these crude figures for differences of age-constitution in the various classes, which go far to destroy their value for comparative purposes. The yearly summary also contains mortality statistics for fifteen other urban sanitary districts of Ireland, from which it appears that the death-rate in 1887 ranged from 15·5 and 17·0 in the two small towns of Armagh and Lisburn, to 25·9 in Belfast, 26·0 in Waterford, and 26·1 in Kilkenny. The mean death-rate in sixteen of the largest town districts of Ireland, including Dublin, was 26·2 per '1000, against 20·8 in the twenty-eight largest towns of England and Wales, affording a most unfavourable commentary on the sanitary condition of the urban population in Ireland.

NEW WORKHOUSE INFIRMARY, BIRMINGHAM.

THIS is one of the most elaborate buildings of the kind we are acquainted with, replete with every advantage afforded by modern knowledge, plain, substantial, and admirably adapted to the purposes for which it is intended. Now rapidly approaching completion, it will be ready for occupation in July, and doubtless will form an important feature in the control exercised by the guardians over the sick poor of the town. Designed by Mr. W. H. Ward, architect, and built by W. Bissett and Sons of Sheffield, it covers a site of fourteen acres, arranged on the pavilion system for the accommodation of 1600 patients, at a cost of £60,000. The pavilions are eleven in number, on either side of a central corridor 10 feet wide and 234 yards long. Each pavilion is three storeys in height, a storey forming a ward 90 feet long by 26 feet wide; this, allowing twenty-five patients to each ward, will admit of an air space of 1000 cubic feet to each patient, and a verandah for convalescent patients; while at either end of each there is a room for cases difficult to deal with, bath-room, and lavatory, nurses' room, scullery, and linen store. A separate building forms the nurses' home, where each one—seventy-two in number—will have a room to herself, with a large recreation hall in common. The medical staff have also a separate building, bedroom and sitting-room being devoted to each, with a common dining-room and library; a room being set apart also for the use of the visiting physician. The administrative block occupies commodious premises; and a little distance from this is a laundry and mortuary, the latter fitted up for post-mortem examinations. Provisions are made for dealing with infectious patients and their clothes in connexion with their admission to the workhouse or the infirmary, in a manner to leave as little chance as possible of any spread of disease among the inmates. The ventilation arrangements are of a complete kind, warm air being admitted above the heads of the patients, and finding exit by gas ventilators in the ceiling, or through perforated zinc squares at the same level. The wards themselves are each warmed by two Manchester stoves supplied with air from outside, the products of combustion being carried downwards by a flue beneath the flooring. The walls will be painted and whitewashed, while the floors are formed of concrete and iron laid with oak blocks. Water mains and hydrants are well distributed through the building; hydraulic lifts will add to the convenience of moving heavy articles, and a service corridor running under the main corridor will greatly facilitate the administrative work of the institution. The long corridor spoken of is open to the air; though in fine weather this will be an advantage, it will probably be found that practically some alteration will be necessary to ensure due comfort to the residents during inclement weather. The entire arrangements have been carried out with much care, and, though not without opposition in the conduct of this essential duty, the guardians are to be congratulated upon the erection of a building well calculated to promote the efficient carrying out of a difficult portion of their work.

NEURO-KINESIS, NEURASTHENIA, HYSTERIA.

THE following communication from Mr. Hovell was addressed to Dr. Gervis, President of the Hunterian Society, and is intended as a kind of postscript to his paper on "Hysteria" read before the Society a short while ago:—

"Dear Mr. President,—It seems to me that some word is needed to define the condition of the nervous system which ensues upon shock, either physical or moral, or break-down from overstrain, more closely than neurasthenia, which may mean a natural state, or hysteria, which implies a special source or cause. This condition—which is attended by loss of physical power, paresis, &c.; by loss of moral power, irresolution, &c.; by susceptibility to pain, hyperæsthesia, and irritation in all forms; by a readiness to take on perverted action, paroxysm or emotion, on the one hand, or to fall to pieces, as it were, as if the screws were loose or fallen out, prostration of power, on the other; by a loss of integrity of nerve power or of some element that is essential to it—might, perhaps, be represented by neuro-kinesis: i.e., nerve shock or shaking, or nerve commotion.

"Revision and improvement in nomenclature necessarily attend upon advance of science. No one in the present day would think of confusing typhus with typhoid fever, or of adopting in the one case the treatment suitable for the other. So the emotion which so frequently ensues upon shock is simply emotion. It is not hysteria. To call it hysteria is to attribute to a natural consequence a special cause which does not appertain to it. Obviously, the treatment of emotion *per se*, and that of hysteria *per se*, ought to be essentially different.

"Again, loss of power of the will, of self-reliance, irresolution, &c., is another effect and result of shock. This condition palpably stands in need of help to restore the will which is in abeyance, and to rouse to resolute action the power that is temporarily prostrated and suspended. If this need of aid is ignored because it is either not recognised or misunderstood, it becomes *an unrelieved want*, the repeated representation of which by the patient is very liable to be misinterpreted into "craving for sympathy" by the doctor, who thus fails to see the true state of the case. Let the patient once see that her condition is rightly understood, and that it will meet with attention, and this reputed craving will cease. At least, this is in accordance with my experience. When once hysteria ceases to be a 'disorder with which everyone is familiar, but which nobody understands,' the treatment will become more rational and more successful. Hitherto it has represented neither the science nor the art of medicine.

"I am, Sir, yours truly,

"D. DE BERDT HOVELL.

"To the President of the Hunterian Society. Feb. 10th, 1888."

WORK AT THE DALRYMPLE HOME.

A PAPER was read by Dr. Norman Kerr, at a meeting of the Medical Temperance Association, on the 21st inst., on five years' work at the Dalrymple Home for Inebriates, Rickmansworth. There had been 115 patients treated in the Home—54 under the Habitual Drunkards Act, and 61 privately, after an average residence of seven months; 35 were admitted for twelve months, 13 for six months, 19 for three months, besides others for varying terms. The average age on admission was thirty-five, and the average duration of habit eight years and a half. There were 93 cases from England, 5 from Scotland, 7 from Ireland, 2 from France, and 1 each from Switzerland, Australia, New Zealand, Cape Colony, the United States, South America, Canada, and India. Four had only an elementary education, but the remainder were well educated, 27 having graduated. The professions were well represented. There were 28 gentlemen of private fortune. There was a history of heredity of inebriety in 20 cases, and of insanity in 10. In 7 cases, chloral, chlorodyne, opium, or morphia was associated with alcohol. There were 22 of a phlegmatic temperament, and the rest of a nervous

type. There were 73 regular and 42 periodical drunkards; of the latter, 5 had an outbreak every week, 2 every fortnight, 4 every three weeks, 4 every month, 5 every six weeks 8 every two months, and 10 every three months, 11 being very irregular; 16 had one attack of delirium tremens, 7 two attacks, 5 three attacks, and 1 five attacks; 102 were social, and 13 solitary, drinkers; 10 affected beer or wine, 5 gin, 14 brandy, 31 whisky, and 55 all kinds of intoxicating liquors. Among the exciting causes were sociability in 44 cases, nerve-shock of some kind in 26, want of occupation in 27, influence of occupation in 13, overwork in 4, and injury or ill-health in 10. Among complicating ailments were phthisis &c. in 5 cases, rheumatism and gout in 7, syphilis in 8, dyspepsia in 5, general debility in 3, amaurosis in 2, intestinal affections in 3, epilepsy in 2, and cirrhosis in 1. Of the 92 whose after-history was known, 52 were doing well, 4 were improved, and 36 unimproved. Dr. Kerr stated that these records, with his own experience in private practice, had convinced him that inebriety was frequently a true disease amenable to sound scientific treatment.

PLAGUES, ANCIENT AND MODERN.

AT the Parkes Museum, Margaret-street, on Feb. 16th (Sir Douglas Galton, K.C.B., D.C.L., L.L.D., F.R.S., in the chair), Dr. J. F. Payne gave a lecture on "Plagues, Ancient and Modern." The lecturer compared the distribution of certain specific diseases over the globe to the geographical distribution of plants and animals. They were native or indigenous in certain centres or regions, from which they had at different times migrated. The history of their migration is the history of epidemics. During the history of the Oriental plague, of which the "black death" in the 14th century was the most destructive outbreak, it was shown that this great pestilence was derived from Asia. Contemporary witnesses had observed and, indeed, accompanied its march from the borders of Tartary to Italy. The probability is that its original starting-point was still further east in China, or possibly in India; and in confirmation of this it was shown that the true plague in a form closely resembling the "black death" still exists, or has existed within the last few years, both in India and China. The original seat of the disease must therefore be placed in one of these countries, probably in China; and its invasion of Europe in the 14th century was an instance of migration from its original home. The historical sweating sickness which prevailed in England in the time of the Tudor kings was next spoken of. It was thought to be a disease imported from France by the foreign mercenary soldiers of Henry VII., and owed its extraordinary severity to the fact that it was a new disease in England, since diseases very often spread in a new country with great rapidity and virulence. Another instance is that of European measles introduced into the South Sea Islands, where, especially in Fiji, it has caused an enormous mortality. A disease closely resembling the sweating sickness still recurs from time to time in certain parts of France, and a considerable epidemic of it was observed only last year, when it spread through numerous villages, and caused a not inconsiderable mortality. In both these cases the old historical pestilences are to be found still existing in modern times, but at a distance from the countries in which their most destructive visitations appeared.

VOLUNTEER MEDICAL ASSOCIATION.

ON Saturday last, the 18th inst., at the Guildhall, before a large assemblage of ladies and gentlemen, the Lord Mayor distributed the certificates to the winter class of the Ambulance Department, which is now under the direction of the Volunteer Medical Association, of which the President is Field-Marshal H.R.H. the Prince of Wales. The Volunteer Medical Staff Corps attended as a guard of honour, and were accompanied by their band. Sir W. Guyer Hunter, chairman of the Council, introduced the subject, explaining the objects of the instruction &c., and among other things mentioned the intention of the Council of instituting a Challenge Shield, to be competed for annually by bearers of the different regiments throughout the United Kingdom, and he hoped a similar prestige would be accorded to it to that obtained for the Elcho Shield in shooting. Surgeon J. Elward Squire, the instructor of the class, next put them through a series of movements, drill, &c. Surgeon-General W. R. Cornish, C.I.E., proposed a vote of thanks to the Lord Mayor for so kindly lending the Guildhall for the purposes of drill, and for aiding in many ways, including his presence there that afternoon, to assist in advancing the movement. Surgeon-Major A. T. Norton seconded the resolution, remarking that this was the first occasion on which the certificates had been distributed since the Ambulance Department had been joined to the Volunteer Medical Association, and that it was also the first meeting of the Association under the new *régime*. The Lord Mayor then handed to each of the successful members of the class the War Office Certificate, and complimented the class on their proficiency. He spoke in favour of the suggestion of the Challenge Shield, and requested that his name might be put down for five guineas, as the first donation towards the sum required for that object.

Afterwards, about fifty Volunteer medical officers dined together at the Holborn Restaurant, under the presidency of Sir Guyer Hunter, who, in speaking after dinner, stated that the new Warrant, which he knew would be shortly issued, would be very favourable as to the requirements of the Association, and remarked that he was convinced that there was a universal feeling among Volunteer medical officers that the service which they rendered to the country should not be allowed to interfere in any way with the Army Medical Staff. Surgeon-Major Norton suggested that the annual meeting should take place in the leading provincial towns and in London in rotation; and Surgeon William Robert Smith, the treasurer of the Association, gave a *résumé* of what had been done by the Council of the Association, and what they intended to do. The health of the visitors, responded to by Surgeon-General Cornish, Professor Klein, F.R.S., and Surgeon Fenn, of the Grenadier Guards, terminated a most successful meeting.

MEDICAL TRIAL.

THE SOCIETY OF APOTHECARIES v. MIDDLEBROOK.

AT the Burslem County Court on the 13th inst., before his Honour, Judge Jordan, the Society of Apothecaries brought an action against Mr. E. Middlebrook, of Burslem and Smallthorne, to recover the sum of £20 for having practised as an apothecary without having obtained the necessary certificate.

Mr. E. A. Paine represented the Society of Apothecaries, and Mr. A. B. D. Sword appeared for the defendant.

Mr. Paine, in opening the case, said the defendant had for some time past carried on an extensive business in Burslem as an apothecary and surgeon, without any qualifications. He had also a dispensary, called "Middlebrook's Provident Dispensary," at Smallthorne, and described himself as "E. Middlebrook, L.M. Dublin, Surgeon, Accoucheur," besides other degrees. He had attended a number of patients for bronchitis, scarlet fever, and other diseases, given certificates of the causes of death to be registered in the ordinary way, and prescribed medicines and given his patients instructions as to taking them. Irrespective of attending patients, Mr. Middlebrook had obtained the appointment of surgeon to the Ancient Order of Oddfellows, and as such had visited and attended persons, as well as reported upon their state of health, previously to their becoming members of the Order, and the secretary of the Oddfellows had been under the impression that he was a surgeon. When the summons was issued Mr. Middlebrook lived alone and had up a plate bearing the words "E. Middlebrook's Dispensary," and afterwards the name was removed, and the name substituted of a qualified surgeon for that of his own, the name substituted being that of a surgeon who had acted as assistant to a surgeon in the town, recently deceased.

Witnesses having been called,

Mr. Sword took objection at first to the fact that the defendant had not received twenty-one days' notice under the Act of Parliament, and also submitted that there had been no proof within the Act that Middlebrook had actually practised as an apothecary. The Act would not prevent persons from doing many things in connexion with medical advice, and it must be proved that there had been a charge made. The meaning of the Act was that a man of absolutely no

qualification should not be allowed to go about holding himself out as a medical man. But Mr. Middlebrook was a gentleman who possessed some of the highest qualifications. He was a Doctor of Medicine of an American University, and had obtained a qualification from the Coombe Hospital, Dublin, which would entitle him to practise in midwifery and diseases of children. He also had letters from eminent medical men connected with the Coombe Hospital which testified as to his ability as a medical man during his tenure of the house-surgeonship of that hospital. Mr. Sword submitted that there was no proof that Mr. Middlebrook had ever received any fees. If, however, his Honour decided that his client was liable to a penalty, he contended that the Court had power, under the Summary Jurisdiction Act, to reduce the penalty. He ventured to submit that in such a case as this, where the prosecution was instituted by an insignificant body—because, after all, the Apothecaries' Society held now but a small position,—his Honour would consider that justice would be met, if any penalty at all was imposed, by a fine of the very smallest coin in the realm.

His Honour, in giving judgment, said that an apothecary had been defined by Mr. Justice Cresswell as one who judged of internal diseases by its symptoms, and who set himself to cure that disease by medicine. What had this gentleman done? Speaking as a lawyer, dealing with the dry case of law, it was proved to his entire satisfaction that he did so. About that there could be no possible doubt. It was not pretended that he had any qualification such as was required by this Act of Parliament, because to be so qualified he must have passed an examination to get a certificate from the examiners in order to practise. But he had not done that. Upon the question of notice, he was against Mr. Sword, and as to the qualifications mentioned by Mr. Sword, he could only say, without speaking a word against Mr. Middlebrook's ability, that they were not such as were required under this particular Act. He (his Honour) held that he had no power to minimise and reduce the penalty at all, and he was not sure that had he the power he would exercise it in favour of anybody, as it was of the greatest importance that Acts of this character should be carried out. This was as clear a case as could well be. Mr. Middlebrook had practised as an apothecary without any certificate, and he must give a verdict for a penalty of £20 and the costs.

Mr. Sword asked for the penalty to be paid in instalments, but his Honour said he could not order that in the case of a penalty.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

In twenty-eight of the largest English towns 5516 births and 3764 deaths were registered during the week ending February 18th. The annual rate of mortality in these towns, which had declined in the first five weeks of this year from 23·8 to 21·9, rose in the sixth week to 22·2, but declined again last week to 20·9. During the first seven weeks of the current quarter the death-rate in these towns averaged 22·5 per 1000, and was 1·9 below the mean rate in the corresponding periods of the ten years 1878-87. The lowest rates in these towns last week were 14·1 in Birkenhead, 14·2 in Sunderland, and 15·4 in Bradford and in Cardiff. The rates in the other towns ranged upwards to 26·7 in Norwich, 26·8 in Preston, 29·3 in Manchester, and 29·4 in Wolverhampton. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had been 507 and 491 in the preceding two weeks, further declined last week to 405; they included 170 from whooping-cough, 61 from scarlet fever, 40 from "fever" (principally enteric), 38 from measles, 37 from small-pox, 35 from diphtheria, and 24 from diarrhœa. These zymotic diseases caused the lowest death-rates in Bradford and Hull, and the highest rates in Nottingham, Oldham, and Sheffield. Whooping-cough caused the greatest mortality in Brighton, Salford, and Birmingham; scarlet fever in Halifax, Oldham, Preston, and Birkenhead; "fever" in Nottingham and Norwich; and measles in Wolverhampton, Nottingham, and Plymouth. The 35 deaths from diphtheria in the twenty-eight towns included 18 in London, 5 in Liverpool, 2 in Birmingham, 2 in Manchester, 2 in Salford, and 2 in Oldham. Small-pox caused 30 deaths in Sheffield, 2 in Bristol, 2 in Leeds, 1 in London, 1 in Nottingham, and 1 in Manchester, but not one in any of the twenty-two other large provincial towns. The Metropolitan Asylum Hospitals contained only 6 small-pox patients on Saturday last, against 8 at the end of the previous week; and the Highgate Small-pox Hospital contained 1 patient. The number of scarlet fever patients in the Metropolitan Asylum Hospitals and in the London Fever Hospital was 1470 at the end of last week, against numbers declining steadily in the preceding eleven weeks from 2764 to 1543; the 111 cases admitted to these hospitals during the week showed a decline of 42 from the number in the previous week. The deaths referred to diseases of the respiratory organs in London, which had declined in the four preceding weeks from 591 to 504, further fell last week to 487, and were 57 below the corrected average. The causes of 68, or 1·8 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Portsmouth, Sunderland, and in three other smaller towns; the largest proportions of uncertified deaths were registered in Hull, Oldham, Cardiff, and Huddersfield.

HEALTH OF SCOTCH TOWNS.

The annual rate of mortality in the eight Scotch towns, which had been 22·4 and 22·5 per 1000 in the preceding two weeks, was again 22·5 in the week ending February 18th; this rate exceeded by 1·6 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·5 and 14·7 in Greenock and Leith, to 25·9 in Glasgow and 30·4 in Paisley. The 568 deaths in the eight towns corresponded with the number returned in the previous week, and included 21 which were referred to whooping-cough, 13 to diphtheria, 11 to diarrhœa, 8 to measles, 5 to scarlet fever, 4 to "fever" (typhus, enteric, or undefined), and not one to small-pox; in all, 62 deaths resulted from these principal zymotic diseases, against 69 and 62 in the preceding two weeks. These 62 deaths were equal to an annual rate of 2·5 per 1000, which was 0·3 above the mean rate last week from the same diseases in the twenty-eight English towns. The fatal cases of whooping-cough, which had been 25 and 24 in the previous two weeks, further declined last week to 21, no fewer than 16 being recorded in Glasgow. The 13 deaths from diphtheria, however, showed an increase of 5 upon the number in the previous week, and included 6 in Glasgow and 5 in Edinburgh. The fatal cases of measles, on the other hand, which had been 9 and 13 in the preceding two weeks, declined last week to 8, of which 3 occurred in Dundee, 2 in Glasgow, and 2 in Edinburgh. The 5 deaths from scarlet fever showed a further decline from recent weekly numbers, 4 being returned in Glasgow. Of the 4 deaths from "fever" 1 occurred in Glasgow, 1 in Dundee, 1 in Aberdeen, and 1 in Paisley. The 11 deaths attributed to diarrhœa exceeded the numbers returned in recent weeks. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 142 and 128 in the preceding two weeks, rose again last week to 148, and exceeded by 2 the number returned in the corresponding week of last year. The causes of 81, or more than 14 per cent., of the deaths registered in the eight towns during the week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been 29·9 per 1000 in each of the preceding two weeks, declined to 25·9 in the week ending February 18th. During the first seven weeks of the current quarter the death-rate in the city averaged 32·2 per 1000, the mean rate during the same period being 22·7 in London and 23·6 in Edinburgh. The 175 deaths in Dublin showed a decline of 27 from the number returned in each of the preceding two weeks; they included 7 which were referred to scarlet fever, 4 to whooping-cough, 2 to "fever" (typhus, enteric, or undefined), 2 to diarrhœa, 1 to diphtheria, 1 to measles, and not one to small-pox. Thus the deaths from these principal zymotic diseases, which had been 33, 25, and 21 in the preceding three weeks, further declined last week to 17, and were equal to an annual rate of 2·5 per 1000, the rate from the same diseases being 2·6 in London and 2·4 in Edinburgh. The fatal cases of scarlet fever, which had been 6 in each of the preceding two weeks, and had averaged 8 in the first six weeks of this year, were 7 last week. The deaths from whooping-cough, which had been 10 and 9 in

the two previous weeks, further declined last week to 4; those from the other zymotic diseases scarcely differed from the numbers in the previous week. The deaths both of infants and of elderly persons showed a decline from the numbers in the previous week. Two inquest cases and 1 death from violence were registered; and 47, or more than a quarter, of the deaths occurred in public institutions. The causes of 20, or nearly 12 per cent., of the deaths in the city were not certified.

THE SERVICES.

INDIA OFFICE.—The Queen has approved of the retirement from the Service of the undermentioned Officer of the Indian Military Forces:—Surgeon-Major James Joseph Louis Ratton, M.D., of the Madras Medical Establishment (dated Jan. 26th, 1888). The Queen has also approved of the supersession of the undermentioned Officer for absence without leave:—Surgeon Henry Anderson Sheppard, of the Bengal Medical Establishment (dated Nov. 28th, 1886).

ADMIRALTY.—Inspector-General of Hospitals and Fleets James Nicholas Dick, C.B., has been appointed Director-General of the Medical Department of the Navy (dated Feb. 25th, 1888).

The following appointments have been made:—Staff Surgeon Charles Wm. Magrane, to the *Duncan*, additional for Yarmouth Hospital (dated March 5th); Fleet Surgeon T. D. H. Brombow, to the *Impérieuse;* Surgeons G. F. Wales and G. T. Collingwood, to the *Impérieuse;* Surgeon W. H. O'Meara, to the *Cambridge;* and Surgeon J. H. Dawe, to the *Griffin.*

Correspondence.

"Audi alteram partem."

THE OPUSCULA OF FRANCISCO REDI.

To the Editors of THE LANCET.

SIRS,—The interest in all that relates to infective particles may just now warrant some notice of the early observations on the poison of the scorpion and viper contained in the above small volume. Your correspondent on the prophylaxis of rabies, Mr. Vincent Richards, directs attention in his valuable "Landmarks of Snake-poison Literature" (Calcutta, 1886), to this pioneer in biological inquiry. He there gives full credit to the work of Fontana a hundred years later, but barely does justice to Francisco Redi, probably from not having his writings at hand. An admirer of Harvey and a strenuous supporter of his views, Redi was the friend of Thomas Wharton and of Nicolas Steno, whose demonstrations of the salivary ducts were not unconnected with his own of the poison gland in the viper.

An old copy of his "Experimenta Naturalia" before me has, in the first part, p. 78, notes on the Italian and African scorpions made in the year 1657. At p. 82 he says the poison is a clear, thin, colourless fluid, and that the orifice for its escape in the last segment of the tail could not be seen by either of the two best microscopes he had selected, one from England, the other from Rome. He then describes how a young pigeon struck thrice by a scorpion from Tunis at once became unsteady, with quickened respiration, then paralysis and convulsions began, and death followed in five hours. The dead pigeon was examined by Steno, who suggested that a similar bird should without delay be struck by the same scorpion. This was done, and though in half an hour some paralysis was noted, the bird recovered, showing that the scorpion had exhausted its supply of venom in the three punctures previously delivered. Next day the same scorpion inflicted two strokes that were fatal to a young pigeon, after convulsions, in four hours (p. 90). After death fluid blood was found in the veins and heart in both birds; their flesh when eaten produced no ill effects. The well-known observations on the viper occupy 140 pages of the second part of this edition of Redi. At pp. 165-171, he describes the viper poison as a yellowish fluid, like almond-oil, bland, and not dangerous when taken into the mouth, but quickly so when applied to any open wound, and in this way fatal to fowls and pigeons in three or four hours; also to other small animals as proved by more than 100 experiments. He examined the two poison fangs in more than 300 vipers. He says (p. 195) the ducts to those from the poison glands are like the salivary ducts lately found by Thomas Wharton, and shown in the museum at Florence to exist in animals by Laurence Bellini. The secretion of this special gland goes on though the viper be for some time deprived of food. A viper kept in this way bit three fowls in succession: the first bitten died; the second was somewhat ill, the third not at all. The bite of the same viper four days afterwards was fatal to a chicken, though still kept without food. The last extract to be given is from p. 211, where, after enumerating seven queries as to how this poison acts, he says, beyond showing that it is not by stopping the circulation through coagulation of the blood either in the veins or heart, no answer to them is to be expected from him, and that after so many experiments on dogs, cats, sheep, goats, peacocks, ducks, pigeons, and other animals, with nothing certain as to this, he neither knows nor hopes to know.

More than one copy, both in the original Italian and the Latin translation of Redi, can be referred to in the library of the Royal College of Physicians. This copy, which I propose to give to the Medico-Chirurgical Society, is a second edition (16mo), printed at Amsterdam in 1685-6. The frontispiece, "De Insectis," engraved by R. de Hooghe, probably for the first edition, is dated 1670. A plate of less merit marks the beginning of the second part, "Experimenta Naturalia." There are fifty-six other plates—twenty-seven collected at the end of the first part, and twenty-nine interleaved. This book, strongly bound in dark-brown leather, may be attractive to some of your readers.

I am, Sirs, your obedient servant,

Feb. 14th, 1888. WILLIAM SQUIRE, M.D., F.R.C.P.

CASE OF COCAINE POISONING.

To the Editors of THE LANCET.

SIRS,—I have read with interest your annotation in THE LANCET of Dec. 3rd on Cocaine Poisoning, as well as the case described in your issue of Dec. 24th by Mr. Bernard Pitts. Perhaps you may think the following case, which occurred in the St. Philip's Almshouse, worthy of record as presenting some very interesting and, as far as I know, unusual symptoms.

On Nov. 2nd, 1887, preparatory to extracting a tooth and removing a small epulis from the lower jaw of a young negro woman, I injected into the gum a solution of half a grain of hydrochlorate of cocaine in five or six drops of water. This was done about 2 P.M. Immediately on withdrawing the needle of the hypodermic syringe I noticed a peculiar wild staring look about the eyes, accompanied by dilatation of the pupils. I at once made the woman wash out her mouth to remove any of the drug which might have escaped from the puncture. As she seemed very restless and her breathing became very rapid and gasping, I removed her from the chair on which she was sitting to a bed close at hand. By the time the little operation, which scarcely lasted a couple of minutes, was completed, her condition was truly alarming. She was wildly delirious, recognising neither the nurse nor myself, talking excitedly, and constantly throwing her arms and legs about. Her extremities were cold as far as the elbows and knees; respirations hurried and irregular; pulse 120, and weak; and pupils widely dilated. I at once wrapped her in blankets, and administered half a drachm each of spirits of sulphuric ether and aromatic spirits of ammonia. This not having much effect, a hypodermic of ether was injected into the arm, and after a while an ounce of brandy was given by the mouth. Soon after taking the brandy—about 2.30 P.M.—she vomited. This act was repeated in a few minutes, and the collapse became in consequence more profound; respirations about 60; heart beats 150; radial pulse irregular, and at times scarcely perceptible. Two more hypodermics of ether were given, and at the end of another quarter of an hour she began slightly to rally. Subsequently two ounces of brandy were injected per rectum, and a large mustard poultice applied over the epigastrium. The vomiting did not recur, and about an hour afterwards she took and retained a small cup of strong coffee. About 5 P.M. she had fairly well recovered from the state of collapse, but yet remained quite delirious. Later in the evening, though still talking incoherently, she could be roused, and would then recognise the nurse; immediately on being let alone, however, her mind

began to ramble again. About 9 P.M. she fell asleep, and rested fairly well during the night. On waking next morning the delirium was entirely gone, and she had no recollection whatever of the performance of the operation, thinking it was yet to be done. Beyond feeling weak and fatigued, she did not seem the worse for her previous day's experience.

Cocaine having within a year or two grown to be regarded as an almost indispensable local anæsthetic for minor surgical operations, it is well to be impressed with the fact that its employment, even in small quantities, is sometimes attended with very alarming symptoms. That these serious effects are generally due to an idiosyncrasy of the individual, and not to any impurity of the drug, is, I think, probable. That such an idiosyncrasy existed in this woman is clearly proved—(1) by the fact that I have employed portions of the same sample of the drug in a number of cases before and since without producing any ill effects whatever; and (2) because the solution used on this occasion was freshly prepared with distilled water just before its injection. There are two points in the above case which are especially worthy of remark—the smallness of the dose which produced toxic symptoms, and the persistent delirium. It seems almost incredible that such severe symptoms were caused by only half a grain of the drug, yet I am quite certain, having prepared the solution myself, that barely that quantity was injected. On many occasions I have used considerably more without observing the slightest ill effects. In addition to the signs of collapse usually met with in poisoning by cocaine, the wild talkative delirium, persisting for many hours after the other symptoms had passed away, is particularly interesting. As far as my reading goes, I have found no mention of its occurrence in any of the numerous cases I have seen reported.

I am, Sirs, yours faithfully,

Barbadoes, Jan. 23rd, 1888. C. E. GOODING, M.D., M.R.C.S.E.

"THE UNIVERSITIES OF OXFORD AND CAMBRIDGE ON COLLEGIATE DEGREES."

To the Editors of THE LANCET.

SIRS,—From some expressions in an article in your last number on the action of Oxford and Cambridge with reference to the petition of the Royal Colleges, I gather that you have been misinformed in two important particulars. 1. You state that the Cambridge petitioners "urge reasons which are rather questions of policy than of educational interest." If you will consider the enclosed copy of the petition, you will observe that its whole argument is, that if the power sought by the Royal Colleges be granted the interests of medical education will suffer. To lower the distinction of a medical degree will be to make it more difficult for all degree-giving bodies to maintain a high standard of educational requirements. 2. You state that, "in order to popularise the Cambridge Medical School, the authorities have, by comparison with Oxford, step by step diminished the stringency of their entrance examination and the length of their curriculum." This is simply the opposite of the true state of matters. Step by step, since in or about 1842 this University first instituted a clinical examination for its M.B. degree, the stringency of the preliminary examinations has been increased, and the curriculum has been lengthened. Now the several M.B. and B.C. examinations are more complete and searching than they have ever been, and the minimum curriculum extends over five years, the average course being nearly seven years. The "authorities" have found that the higher the standard is set the more are students desirous of obtaining the degree; and I speak from knowledge when I say that nothing is further from their minds than a desire to "popularise the Cambridge Medical School" by the methods you suggest. I enclose you an abstract of the present University regulations for comparison with those of any earlier date which you may possess.

I remain, Sirs, faithfully yours,

Feb. 21st, 1888. DONALD MACALISTER.

*** The alterations to which we referred were made in the Natural Science Tripos and Medical Curriculum some years ago, and were commented on at the time.—ED. L.

TENOTOMY AND RAPID REDUCTION OF DEFORMITY.

To the Editors of THE LANCET.

SIRS,—Mr. Marsh, in his paper published in THE LANCET of Feb. 18th, advocates a more simple plan of treatment than that originally practised in respect to dealing with the tendon after tenotomy. In doing so, he states that he desires "to pass no criticism whatever on the 'immediate method,'" because he has no experience that justifies him in pronouncing upon it, either favourably or the reverse. As I have practised the "immediate method" for the last seven or eight years, I am able to form an opinion upon its merits, and I have no hesitation in affirming that this method is far superior in every way to the other plans of operation. For the same reasons that Mr. Marsh advocates rapid reduction of the deformity as superior to the very gradual and slow method, so may those who practise the "immediate reduction" plan recommend their practise as superior to that approved of by Mr. Marsh. Every case I have thus operated upon has been satisfactory, and some of them have been very severe cases of talipes. If simplicity, reduction of trouble and expense, as well as ultimate good results, are the objects to be attained, then the immediate method should be followed whenever practicable. I shall be happy to describe more fully the whole process of treatment at some future time if you consider it desirable, but I have thought you would prefer my making this letter as short as possible.

I am, Sirs, yours faithfully,

Queen Anne-street, Feb. 20th, 1888. NOBLE SMITH.

"THE MEDICAL AND VETERINARY SCIENCES."

To the Editors of THE LANCET.

SIRS,—In your issue of February 11th there is an annotation headed as above, which claims that not only much of what is known about the pathology and etiology of the diseases of the lower animals, as they affect man by way of food or otherwise, has been the result of the labours of officers of health and other medical men under whom the inspectors work, but that also "even at the present juncture, when such questions as the development of scarlatina from a bovine disease, or the relation of bovine to human tuberculosis, have arisen, it has been members of the medical profession who have taken the initiative in studying and discussing the subject."

May I, as a veterinary surgeon, be allowed to offer a few remarks on these statements. As to the first, many of my profession would claim that they had a great deal to do in contributing to what is known regarding these questions; in short, they would say that the apportionment of the credit would admit of much discussion. But as to the statement about tuberculosis, we claim that we have been the pioneers, and that we have all along been some way ahead.

In 1876 Dr. George Fleming, C.B., now Principal Veterinary Surgeon to the Army, delivered a lecture before the Society of Arts, fully going into the first part of your annotation; and in a paper contributed to the *British and Foreign Medico-Chirurgical Review* for 1874, entitled "Tuberculosis from a Sanitary and Pathological point of view," he was the first in this country to draw attention to this disease (tuberculosis) in animals, its nature, transmissibility, and the danger to public health from its existence. And, further, in 1883, he jointly with M. August Lydtin, veterinary adviser to the Government of Baden, published a paper in which "the influence of heredity and contagion in the propagation of tuberculosis, and the prevention of injurious effects from the consumption of the flesh and milk of tuberculous animals," was exhaustively treated. This question was also fully discussed at the International Veterinary Congress at Brussels in 1883. Many other veterinarians have also, during the last ten years, made valuable contributions in the same direction; but it would seem that, although they have appeared in professional journals and the public press, they have escaped the notice of most English medical writers. That this should be the case cannot, however, be considered the fault of the veterinary profession.

As to Dr. Klein's supposed discovery, that scarlatina arises in mankind from a cattle disease—an idea which was eagerly accepted by too many enthusiastic people,—it is

becoming more and more disbelieved, and it is now a battle-field for bacteriologists. The veterinary profession is watching the various phases of the conflict, and wisely reserves its judgment, although it will be surprised if Dr. Klein should come triumphantly out of the ordeal. Suffice it here to say on this subject that Professor Brown, of the Veterinary Department of the Privy Council, states "that up to the end of last year ten different outbreaks of an eruptive disease of the teats of cows were found and investigated. But although in their general clinical appearances, as well as in the microscopic character of the organisms found in them, they agreed with the description given of the Hendon cow disease, none of them were coincident with scarlet fever in the districts in which they occurred."

I would submit that where a most important industry, such as the milk supply, is involved, alarming discoveries should not be promulgated until they have been decisively proved. If they are prematurely announced, and afterwards disproved, they can only tend to bring the great subject of bacteriology into unmerited ridicule and discredit.

I am, Sirs, yours truly,

London, Feb. 15th, 1888. JAMES LAMBERT, F.R.C.V.S.

MEDICAL WITNESSES IN LUNACY TRIALS.

To the Editors of THE LANCET.

SIRS,—Medical men are placed frequently in a difficult position when being examined as experts in lunacy cases. This is much increased by the difference in opinion which exists among judges as to what may be given by them in evidence, and allowed to be admissible. This was made most evident in two cases which occurred during last week. I was present on *subpœna* as witness in the Ramsgate shooting case tried at Maidstone before Mr. Justice Mathew. In this case the question of ability to plead was primarily raised. The medical men examined were asked whether in their opinion he was of unsound mind. When being arraigned for his trial, and on their giving the answer in the affirmative, the jury so found. Immediately the case was over, I went down to Leeds to give evidence in another trial of a similar description. On my arrival, I found that Mr. Justice Day had ruled exactly opposite to what I had heard Mr. Justice Mathew rule at Maidstone. I give the shorthand writer's notes. Mr. Waddy, counsel for the prisoner, asked Dr. Clifford Allbutt, who was retained as well as myself in the case, "Was he, in your opinion, sane or insane when examined this morning?" To which Mr. Justice Day remarked: "Experts are not to be asked questions which the jury are sworn to try. You may ask matters of fact as to what he saw or heard, but you must not ask him whether he is sane or not. I am not laying down this point with respect to this particular question of insanity, but I lay it down as a rule by which I shall always be guided in all cases when scientific or expert witnesses are called to give evidence." I think the time has come when medical men should know what they may say in cases where the plea of insanity has been raised, and not, when they arrive on the scene, find they are prohibited from expressing their legitimate opinion for fear of interfering with the prerogative of the British jury, who are stated to be the proper persons to decide the vexed and complicated question, and not the medical expert. The importance of the subject is my excuse for troubling you with this communication.

I am, Sirs, faithfully yours,

L. FORBES WINSLOW, D.C.L. Oxon.

Wimpole-street, W., Feb. 22nd, 1888.

REDUCTION OF DISLOCATION OF THE HUMERUS.

To the Editors of THE LANCET.

SIRS,—I beg to communicate a method of reducing dislocation of the humerus (especially of its most common form—into the axilla), in which the weight of the body is employed as a means of making extension on the same principle, although not by the same mode of procedure, as that advocated by Señor Abril, and described on page 239 of your number for Feb. 4th inst. The method which I have successfully used for many years is as follows:—The patient lies on the floor on his back. Taking a firm hold of his wrist with one hand, and of his arm above the elbow with the other—the latter being assisted by the knee,—I make traction obliquely upwards and outwards until his body is raised to about midway between the sitting and reclining posture, and retain him in that position until muscular relaxation—felt by a lessened resistance—occurs. I then suddenly let the patient fall (as it were), but as suddenly restrain his descent (of course, short of reaching the floor, upon which a cushion may be placed as security for the head), and at the same time make pressure with my knee as a fulcrum, by which the head of the humerus is readily levered into its socket. A pair of strong arms is all the apparatus required. The crutch employed in the method of Señor Abril seems more objectionable than "the heel in the axilla," both plans being open to the objection that they must cause great pain from pressure on the brachial flexus, and that extension cannot be made, as it always should be, in the direction of the line of diplacement.

I am, Sirs, yours obediently,

Wandsworth, S.W., Feb. 13th, 1888. GEO. E. NICHOLAS, M.D.

CONGENITAL GOITRE.

To the Editors of THE LANCET.

SIRS,—On Feb. 10th I attended Mrs. T—— in her confinement. She had a rather tedious time owing to the pains being feeble, but in every other respect the labour was natural, and she was delivered of a son. The cord was round the neck once. Immediately the child was born I noticed the large size of the neck in front, and at first thought it was due to constriction by the cord. However, on examination it proved to be a true case of enlargement of the thyroid on both sides, the right side being much larger than the left. When I told the patient what was the matter with the baby's neck, she said she was not surprised, as her own neck had troubled her a good deal since last September, at times causing her some pain and a good deal of uneasiness. About the same time it commenced to enlarge, and she was in the habit of frequently feeling it; but though it bothered her, she did not think it worth while getting advice about it. Goitre is very common in this district, and I have two cases of "Graves' disease" under my notice at present. I have only had one case of goitre in the male, and have never till now heard of or seen an instance of congenital goitre. Taking the mother's statement into consideration, I am inclined to think that "maternal impression" has had some influence in producing the complaint. I have seen the child again to-day (Feb. 17), and although the left side seems a little smaller, the right side is still the same size. The deformity does not in any way interfere with the child's breathing, or with his taking food.

Perhaps some of your readers will kindly say if they have met with a similar case, and what treatment, if any, they adopted. I feel inclined to leave it alone for the present, and see what nature will do.—I am, Sirs, yours truly,

GEORGE H. ORMSBY, M.K.Q.C.P.I., &c.

Slaidburn, Feb. 17th, 1888.

THE PATHOLOGY OF URIC ACID ELUCIDATED BY THE SHAPE OF BOOTS.

To the Editors of THE LANCET.

SIRS,—Having read the interesting article on the Pathology of Uric Acid in your issue of Feb. 11th, and your comparison therein of the claims to credence of the physical and chemical theories, in which you state that remote joints and those parts exposed to injury being most liable to attacks of gout are facts in favour of the "mechanical theory," I would point out that these two factors are quite sufficient to account for the special liability to attack that the big toe evinces; not only must the blood current be feeble on account of the distance from the heart, but owing to the prevailing shaped boots nine people out of ten suffer from chronic inflammatory changes in the joint, as it is the only joint that is exposed to constant pressure. If one examines the feet of a child or savage who has never worn boots, it will be found the big toe is separated from the others, and its direction corresponds with a straight line drawn from the centre of the heel through the centre of the "ball" of the big toe; whereas the modern boot—even the large and roomy shooting boot—is "built" on different lines altogether, forcing

the big toe into apposition with the second toe, and altering its direction so that it forms a considerable angle with the above-mentioned line, the result being in bad cases a bunion (not due, as is generally supposed, to pressure on the joint, but to pressure altering the direction of the toe), and in the uric acid diathesis determining an attack of gout.

I am, Sirs, yours &c.,

Cullompton, Devon. J. HOPE POTTER.

NORTHERN COUNTIES NOTES.

(From our own Correspondent.)

THE HEALTH OF NEWCASTLE.

"AFTER a continued decline the death-rate of Newcastle-on-Tyne has again risen, principally owing to infantile mortality—whooping-cough, scarlet fever, and diphtheria contributing. During the fortnight ending last Saturday fifty-one cases of infectious disease were notified by practitioners to the medical officer of health, Mr. H. E. Armstrong. No less than forty of these cases were scarlet fever, Jesmond suburb, in the north end of the city, contributing seventeen cases.

NEWCASTLE CHEST HOSPITAL.

The Mayor presided at the late meeting of the Northern Counties Hospital for Diseases of the Chest. The report showed that the number of patients treated during the past year was larger than in any previous year since the establishment of the institution, the actual number being 708 this year, against 596 last year, being an increase of 112. The committee had kept in view the desirability of establishing an inland convalescent home for cases not suitable for the seaside. The Mayor said that the institution was a standing monument of the kindness of the promoters, and it seemed to be carried on with remarkable economy and very good results.

THE PROFESSION IN NEWCASTLE AND PROVIDENT MEDICAL ASSOCIATIONS.

Last November a meeting of the profession, called by circular, was held in the Royal Infirmary library, to consider the question of a Provident Medical Aid Association for the city. After some spirited discussion the subject was remitted to a sub-committee to obtain information and report again to a general meeting. This has been done, and, as a result, at the meeting held at the Royal Infirmary last Friday—Dr. Philipson presiding,—after some little opposition the following resolution was carried: "From a knowledge of the working of the Royal Infirmary and the Newcastle Dispensary, and the ample facilities afforded by these and similar institutions, this meeting is decidedly of opinion that any steps towards the establishment of a Provident Dispensary would prejudice the best interests of the existing benevolent institutions, while it would not prove advantageous to the sick poor." It is difficult to see how the meeting could come to any other conclusion in view of the adverse report of the committee, who went very fully into the matter. The Newcastle Dispensary has an excellent honorary and visiting staff and abundant pecuniary resources to do justice to the deserving poor, while—although I have not the dispensary report by me while writing—I believe that it was stated at the last annual meeting that during the year, as a result of a series of investigations into the circumstances of patients attending the dispensary through the medium of the Charity Organisation Society, in no case had it been found that the charity had been abused. It may be mentioned that a very large number of the working classes are skilled artisans in regular employment, earning good wages, and well able to pay properly adjusted fees for their medical requirements; and some of our most successful practitioners owe a good deal of their success to an intelligent consideration of the proper charges to be made to the artisan community here. So that there is really no need for more institutions; besides, the experiment has been tried more than once and failed, and, worse than this, some of the promoters have suffered a pecuniary loss which, being young practitioners, they could ill afford at the time.

NEWCASTLE CLINICAL SOCIETY.

The Newcastle Clinical Society held its fifth annual banquet last week. About sixty sat down, and the chair was occupied by Dr. R. A. Campbell, of this city, an early and active promoter of the Society. Dr. Heath, in the course of his reply to the toast of "The College of Medicine," said the College building was in a forward condition, and he hoped that certain portions of it would be ready for occupation in the course of the summer. He also intimated that a desire had been expressed in certain quarters that the College in its new home would be able to afford accommodation to societies, such as the Clinical Society. This, Dr. Heath said, was a want long felt in Newcastle, and he thought it would be favourably considered by the Council.

Newcastle-on-Tyne, Feb. 22nd.

EDINBURGH.

(From our own Correspondent.)

MEDICO-CHIRURGICAL SOCIETY.

A SPECIAL MEETING of the Society was held last week, for the discussion of the Relation of Bovine Tuberculosis as it appears in Dairies to the corresponding Disease in the Human Subject. Before the discussion was opened, Dr. R. W. Felkin exhibited to the members a case of considerable medical and surgical interest. The patient, a young girl, had suffered from fracture of the left side of the vault of the skull several years before, and had grown up with lessened development of both upper and lower extremities of the right side. Certain muscles of both arm and leg were totally paralysed, although they were present in a partially developed form; supination of the forearm, notably, was entirely absent. Dr. Felkin asked the opinion of Mr. A. W. Hare in regard to the case, who localised the line of depression, corresponding to the old standing fracture, as crossing the fissure of Rolando in its outer third from behind forwards. He further advised an exploratory operation, and, four weeks ago, cut down over the fissure of Rolando, where an osteophytic growth was found growing inwards from the inner table. Along with this was a large extra-dural cyst containing several drachms of pure serum. This was evacuated and a piece of the cyst wall removed along with the osseous stalactite. The operation was done with strict aseptic precautions, and the wound was fully healed on the twelfth day. On the day following the operation the patient spontaneously supinated the forearm for the first time for sixteen years, and since the operation she has gradually recovered the use of the paralysed muscles. It is hoped that growth will recommence in the badly developed limbs, and the patient was shown thus early to the Society in order that her pristine condition might be seen as little modified as possible, and that the members might share with the observers the interest of the further developments of the case. Professor Walley, Principal of the Royal Dick Veterinary College, then introduced the discussion upon Tuberculosis in a lengthy paper in which he dealt with the disease as it appears in the cow and in other domestic animals. His remarks were illustrated by numerous pathological specimens, which gave an unpleasant assurance of the very wide distribution of the disease. In advancing a strong plea for more thorough inspection, and in urging the necessity of summary powers for stamping out the disease by slaughtering all animals found to be affected, he marvelled at the little attention which the matter had received at the hands of the medical profession, and claimed for his own profession the credit of awakening the interest now so widely felt in it. The discussion was continued by Professor McFadyean, who had many interesting facts of his own observation to add to those brought forward by Professor Walley. Dr. Sims Woodhead, while agreeing generally in Professor Walley's views of the importance of the subject alike to the medical and veterinary professions, defended the former from any charge of apathy in regard to it, and pointed out that from its members had proceeded almost all the researches on which our present knowledge of the subject is based. Dr. Alexander James called in question the absolute preventive value of the wholesale slaughtering of affected animals; he was inclined to attribute the great prevalence of the disease to external conditions affecting in a like manner several races of the domestic animals and human beings, and to look for a remedy rather in altering the conditions than by any system of isolation or extirpation of the disease, however thoroughly carried out. The discus-

sion was a prolonged one, lasting over three hours, and it was generally felt to have been of value in directing renewed attention to one of the great practical questions of the day.

THE EDINBURGH CHAIR OF BOTANY.

Great interest is excited in Edinburgh just now in connexion with the appointment of a successor to the late Dr. Alexander Dickson, as Professor of Botany in the University. Several well qualified candidates are in the field; among them, Mr. Patrick Geddes of Edinburgh, Professor Balfour of Oxford, Professor Macnab of Dublin, Professor Traill of Aberdeen, and Mr. Murray of the South Kensington Museum. The appointment lies in the hands of the University Curators, a body of eight members representing important civic and academic interests in the city. Their decision will probably be known about the end of this week.

THE ROYAL INFIRMARY.

Dr. William Russell has been appointed Pathologist to the Infirmary as a colleague of Dr. Bruce, and in succession to Dr. Sims Woodhead, whose duties as Director of the Royal College of Physicians' Laboratory occupy the greater part of his time. This laboratory continues to flourish, and is producing a large mass of valuable experimental work.

Edinburgh, Feb. 21st.

GLASGOW.

(From our own Correspondent.)

HOME VISITING DEPARTMENT, WESTERN INFIRMARY.

THE directors of this infirmary have under their consideration the details of a scheme by means of which advanced students, more especially those who have passed their third professional examination, may become initiated into the routine of private practice as it is to be seen in the homes of the poor. If this scheme comes to a successful issue, and it is to be hoped it will for the credit of the Glasgow school, it will supplement in a most valuable way the practical training the student at present receives. It is only thus that acquaintance can be obtained with measles, whooping-cough, and scores of other ailments rarely seen in hospital; while the mere learning how to deal with patients in private, a matter in which the recent graduate is usually, and naturally enough, very deficient, will provide experience of a singularly useful kind. It is not easy to understand why an educational agency of so much importance has been so long neglected in Glasgow, especially as a system of this kind has long been in operation in Edinburgh, and to a certain extent also in connexion with Anderson's College, Glasgow, with satisfactory results. The principal difficulties in the way seem to be the proper supervision of the visiting students and the incidence of responsibility on the infirmary authorities for the work done; but neither of these difficulties is insurmountable.

ANNUAL REPORT OF THE ROYAL INFIRMARY: A COMPARISON.

The report of the Royal Infirmary for the past year, as expounded by the Lord Provost at the recent annual meeting, contains many points of interest. The first point introduced was that for some years there has been remarkably little variation in the number of in-patients; 4817 and 4790 are the figures for 1886 and 1887. While this is true of in-patients, those treated at the dispensary steadily increase in number. The lowest number of patients in the house on any day was 407, the highest 573. The mortality seems also to be falling. Leaving out of consideration cases moribund on admission (those which die within forty-eight hours), the death-rate has fallen from 7·5 per cent. in 1885 to 6·8 in 1886 and 6·3 in 1887. The hospital is unusually well off financially, being this year able, after paying all expenses, to carry nearly £15,000 to the capital account. It is interesting to note that the working men of Glasgow and the neighbouring towns contribute nearly one-fourth of the sum required yearly to carry on the work of the institution; in 1886 they contributed £4868, in 1887 £5134. The question of supporting infirmaries out of the municipal rates was raised, but found little countenance from those present at the annual meeting. A writer in one of the local newspapers furnishes a most interesting comparison of the work done in the three great infirmaries in Scotland—the Royal in Edinburgh, and the Western and the Royal in Glasgow. The total annual expenditure of the three amounts to £75,594. The following figures from the reports of the three infirmaries, arranged in tabular form, give some curious results:

	Royal, Edinburgh.	Western, Glasgow.	Royal, Glasgow.
Number of patients treated	8823	3577	4777
Daily average number of patients ...	632	364	493
Average residence (in days)	26·9	37·2	38·17
Mortality (excluding deaths within 48 hours)	4·9 %	6·6 %	6·03 %

The disparity between the institutions is seen mainly in the last two items. Are patients kept in the house too long in Glasgow, or for too short a time in Edinburgh? Or is the class of cases treated in Glasgow (more especially surgical cases) on the whole more serious than those treated in Edinburgh? The matter is one worth looking into, as the impression is apt to arise that there is here greater laxity than in Edinburgh in retaining chronic or incurable cases in beds which might have been filled with more suitable patients. As regards mortality also, Edinburgh shows to great advantage. The position of the Glasgow Infirmary in this respect may be explained much as in the last item discussed. A more serious class of cases, drawn from workmen who have spent their lives in a densely populated city, would naturally give a higher mortality than a large number of generally slighter cases coming mainly from country districts. It would be well if something could be done to ascertain definitely the causes of such differences in institutions on apparently an equal footing as regards accommodation, equipment, medical and surgical skill, and nursing.

Glasgow, Feb. 20th.

DUBLIN.

(From our own Correspondent.)

THE DUBLIN DEATH-RATE.

AT the annual meeting of the Dublin Sanitary Association held last week, the chairman (Dr. Grimshaw, Registrar-General for Ireland) said that the death-rate of the Dublin registration district for 1887 had reached a degree which had not been surpassed since the year 1880. The prolonged winter of 1886-7 acting on a sensitive population, and the unusual prevalence of diarrhœa and measles finding the usual favourable fields for their ravages, were the main causes of the death-rate being so far in excess of the average. There was evidence, he thought, that the working-classes in Dublin were not so poor as was alleged, and that they expended enormous sums of money on intoxicating drinks. So much was this the case that Dublin enjoyed the unenviable notoriety of being one of the most drunken towns in the United Kingdom. This question of the relation of drunkenness to the mortality of town populations was one of great importance. Now, although the death-rate and drink-rate did not vary in any exact ratio, yet the fact remained that in English towns where there was less drunkenness the death-rate was lower, and in Irish towns where the drink-rate was higher the death-rate was higher. It appeared to him that one of the most important paragraphs in the report was that which referred to the late Committee of Inquiry into the Dublin Hospitals. As regards the hospital accommodation in Dublin, he was of opinion there was abundance of general hospital accommodation for both pauper and artisan classes, also for lying-in women. There was, however, an insufficient accommodation for infectious fevers; and not only was what they had insufficient, but some of it was, he believed, of a character unsuitable for the patients and dangerous to the community at large. He was sorry to say that a system was still in existence of providing fever wards in connexion with their general hospitals—a system which, he thought, could not be too strongly condemned. It was essential to safety that well-regulated and well-isolated hospitals for the treatment of infectious diseases should exist in every district, and that all attempts to deal with these forms of diseases in general hospitals should be abandoned.

MERCER'S HOSPITAL.

Before the Vice-Chancellor, application was recently made by counsel on behalf of Dr. Knight, one of the

defendants in the action brought against the governors of Mercer's Hospital by Mr. E. Stamor O'Grady, senior surgeon, that it be dismissed for want of prosecution so far as Dr. Knight was concerned. Counsel for Mr. O'Grady applied for time to consider the application, and the Vice-Chancellor ordered the case to stand over. At a meeting of the Council of the Dublin Hospital Sunday Fund, held on the 16th inst., it was resolved that the name of Mercer's Hospital be struck off the list of institutions entitled to receive grants from that Fund.

THE ROYAL BARRACKS, DUBLIN.

It is to be hoped that the suggestions made in the recent report of the Commissioners (Sir Charles Cameron and Dr. Grimshaw) will be carried out without delay, and that the authorities will lose no time in remedying the abuses which it is acknowledged on all sides exist. It would seem, however, from what fell from the Secretary of War in the recent discussion in the House of Lords, that a considerable time is likely to elapse before the barracks in question are placed in a proper sanitary condition.

ROYAL ACADEMY OF MEDICINE IN IRELAND.

At a meeting of the Pathological Section of the Academy last week, Dr. Ball read a paper on a case of hydatid cyst of the deltoid, which was of interest inasmuch as a microscopical examination showed the presence of cysticercus cellulosæ. Dr. E. H. Bennett showed a very unusual specimen, that of rupture of the trachea, which was almost completely divided, caused by an accident; and the patient had also an oblique fracture of the sternum. A case of ulcerative endocarditis, with microscopical specimens exhibiting micrococci in large numbers, was described by Dr. James Little.

APOTHECARIES' HALL OF IRELAND: SCHOOL OF PHARMACY.

A School of Pharmacy, under the direction of the Court of Directors, has been established, with the object of meeting a want much felt by medical and pharmaceutical students. The courses will be divided into three parts:—1. Preliminary: Pharmaceutical nomenclature and abbreviations; the weights and measures of the British Pharmacopœia, and how to use them; processes and apparatus of the British Pharmacopœia—viz., filtration, maceration, percolation, trituration, pill-making, plaster-spreading, &c. 2. Officinal Pharmacy: Systematic exercises in the preparation of officinal compounds, and the application of the Pharmacopœic tests for purity. 3. Extemporaneous Pharmacy: The reading in full Latin, compounding, and dispensing of prescriptions, and the study of incompatibles. The fee for a three months' course will be £3 3s.

The Provost of Trinity College died on Sunday evening, after a short illness.

Dr. Terence Brodie, late Local Government Board inspector, died at his residence near Dublin on the 19th inst., aged eighty-six years.

Sunday, Nov. 11th, has been fixed for the next Hospital Sunday collection.

PARIS.

(From our own Correspondent.)

ANTIPYRIN.

ON behalf of Dr. Oscar Jennings, Professor Ball read a note at the last meeting of the Academy of Medicine on the Toxic Effects of Antipyrin.[1] At a recent meeting of the Société de Thérapeutique, Dr. Hénocque drew the attention of the Society to the hæmostatic property of antipyrin, which had been the subject of investigation by him. One of his first experiments consisted in steeping the feet of young guinea-pigs, which had been cut, in vessels containing divers hæmostatic agents, such as the perchloride of iron, ergotine, and antipyrin. It is this last agent that appeared to be the most energetic, the bleeding having been arrested in a few minutes. Dr. Moutard-Martin and others had tried antipyrin by the mouth without obtaining any appreciable result. Dr. Bilhaut reported two cases in which he had employed antipyrin, in solution, in the proportion of from 1 to 20 parts, as a hæmostatic and antiseptic, and with the most satisfactory results.

[1] This paper is given in full in another part of our present issue.

THE VIRUS OF RABIES.

Dr. V. Galtier recently made a communication to the Academy of Sciences on the persistence of the rabic virulence in corpses buried in the ground. According to the author, the rabic virus preserves its activity in bodies buried, so that should any doubt arise after the burial as to the nature of the malady that had caused death, the exhumation of the body and the inoculation of the bulb are naturally indicated. In support of his thesis, Dr. Galtier states that on Nov. 25th last the body of a dead dog that had been buried for fifteen days was brought to him. The dog had left the house of his master after having presented signs of rabies and having bitten another dog and a fowl. According to the information obtained and from what was noticed at the necropsy, there was no doubt that the dog died from rabies. The brain was extracted on the same day, and a portion of the bulb was employed on the following day (Nov. 26th), to practise an inoculation by trephining in a dog, which became furiously rabid on Dec. 7th, and died paralysed on the 10th. At the necropsy the stomach was found empty of food, but it was filled with a mass of straw exhaling an odour of manure; the œsophagus also contained straw in its thoracic portion; a brownish substance was found in the intestine; the larynx was vividly injected; the brain was congested, but there were no lesions consecutive to the trephining. The rabies of this first subject inoculated was transmitted with success to other animals. To sum up, the bulb of a dog that had been dead seventeen days from rabies and buried fifteen days, preserved all the virulence of the disease, which was proved by the manifestation of rabies in twelve days in a dog that had been inoculated, and which died fifteen days after the operation.

PTOMAINES AND EXPIRED AIR.

Dr. d'Arsonval read a paper at the Société de Biologie on the resemblance between the toxic action of certain ptomaines and that of the pulmonary poison. The mode of action of the poison of expired air, remarked the author, is similar to that of the toxic agent which was studied by Brieger under the name of putrefactive neurine. In these two species of poisoning one observes movements of mastication and of deglutition, an acceleration of the cardiac beats, an arrest of the heart in diastole, a contraction of the pupils, diarrhœa, and a paresis of the lower extremities. In conclusion, the author states that there is no doubt that, after this comparative examination of the phenomena produced by the putrefactive neurine and the pulmonary poison, these two substances have a very great analogy of action. This is one more reason why the toxic agent of expired air should be looked upon as an animal alkaloid.

Paris, Feb. 21st.

INDIA.

(From a Correspondent.)

REGISTRATION OF MEDICAL PRACTITIONERS.

A TOPIC which is at present exciting some attention in medical circles here is the registration of medical practitioners. As matters stand at present, anyone can practise without let or hindrance either with or without a degree or diploma, and the agitation set on foot by the Medical Society of Calcutta and the Medical Union of Bombay has as its aim to put a stop to illegitimate practice. These bodies, I understand, have already submitted their views to Government, and schemes for their consideration and guidance in legislating on the subject. While this is being done with the object of preventing unqualified men from practising and imposing on public credulity, it is amusing to find licentiates in medicine and surgery of the Bombay University and others style themselves "Dr. ——, bone-setter and curer of piles and fistula." Such and other designations are used on huge signboards over their various residences and places of business. Some of them even go the length of publicly advertising in the daily papers and tout for patients. Is it not time that the medical syndics should take some notice of such conduct and mark their sense of disapproval in some shape or form? In many cases

UME TIGHTLY BOUND

there is little or no difference between the qualified practitioner and the veritable quack. They both keep "drug-shops" with a display of bottles, and see patients almost in the streets, the examination consisting of little else than feeling the pulse, or a pretence at this, and looking at the tongue—very often not as much; then follows a bottle of physic. The public, especially the ignorant public of India who resort to these "dispensaries," which in Bombay are as plentiful as blackberries, cannot discriminate between the qualified and the unqualified. There is no doubt that some sort of legislation is needed in India, and more particularly in the capital cities.

THE SALT TAX.

This subject is attracting a good deal of public attention in this country, and the following extract from Mr. Lisboa's work, "Useful Plants of the Bombay Presidency," reprinted in the *Bombay Gazetteer*, vol. XXV., is not without interest as to its bearing on public health:—"In the presidential address delivered before the Grant College Medical Society, in 1878, in speaking of the causes of leprosy, I said: Some attribute it to the deficiency of salt in the food of the poor people of this country, and to the use of *dall*. The experiments made by Boussingault show that the addition of salt to the fodder of animals has no influence on the quantity of flesh, fat, or milk obtained from them, but it appears to have a favourable effect on the appearance and quality of the stock. After detailing his experiments, Boussingault observes that the hair in the oxen which had salt was smooth and shining; that of the other which had no salt added to their fodder was matted, and the skin here and there devoid of hairs. Those of the first lot, on the contrary, retained the look of stall-fed beasts; their liveliness and freqent indication of a desire to leap contrasted strikingly with the heavy and cold temperament observed in those of the second lot. Baron Von Liebig, after remarking how the constitution is lowered by deficiency of salt in food and thus becomes liable to be easily attacked by various morbific agents, says: 'You all know that the high tax on salt imposed by the Indian Government falls chiefly and heavily on the poor population. The Government is desirous of abolishing or reducing it, and we must hope that the time of its remission will soon arrive. The poor population of India generally uses as articles of food various wild and uncultivated herbs mixed with cultivated grain and pulses, but during scarcity and famine it lives entirely on the former. In this kind of food some find the causes of leprosy. I have examined all the wild vegetables said by the Government officers to be used by the poor natives, and found that the greater number of them must be of easy digestion and all innocuous, but it remains to be ascertained if the prolonged use of these substances can exercise any influence in engendering some morbid state of constitution; and if in times of scarcity good legumes are mixed with diseased grain, &c. It is a fact that all pot herbs, grains, pulses, and tubers contain less salt. For example, potatoes and spinach cannot be eaten without salt, perhaps uncultivated leguminous vegetables, which by themselves are innocuous when eaten for a long period without being seasoned with a proper quantity of salt, may lead to the deterioration of the nutrient fluid of the human body, ending ultimately in the production of the disease. *Dall*, good or diseased, may be noxious for the same reasons.'"

Bombay, Feb. 4th.

Obituary.

ROMOLO GRIFFINI.

IN Dr. Griffini of Milan, a physician of European reputation in connexion with the diseases of infancy died on the 9th ult. at Varese, near the lovely lake of that name, in Upper Italy. He was born in the Lombard capital in May, 1825, and was but twenty-three years of age when, just at the threshold of his career, he was with other young Milanese called upon to defend his native city in the memorable Five Days—the prelude to that deliverance from the Austrian yoke which was consummated eleven years afterwards. His contemporaries loved to recount the heroism of the youthful Doctor on the barricades, where, armed with an old matchlock and a rusty sabre, he helped to hurl back the assaults of Radetsky's soldiery. From Milan he thereafter passed to Florence, and, having profited by the prelections of Bufalini, the most philosophical of modern Italian physicians, he returned to the city of his birth, and for some time edited the *Annali Universali di Medicina*. During the campaign of 1859 he organised a hospital for the wounded with such skill and energy that on the cessation of the war he was decorated with the Cross of the Legion of Honour.

He will be chiefly remembered by his compatriots for his work in connexion with the care of foundlings, a philanthropic enterprise in which he did good service by abolishing the "Ruota," that pernicious Italian institution for exposed infants, so called from the basket revolving on a pivot in an aperture of the wall, through which the little stray waif was received, and afterwards "attended to" in such fashion that its chances of reaching adult age were more than precarious. The abolition of this abuse cost him a "thirty years' war" with many of his countrymen, clerical and lay, including the celebrated Nicolò Tommaseo. Most of this time he acted as physician-in-chief to the Ospedale Maggiore of Milan, a post which he exchanged for that of director of the Brefotrofio, or foundling hospital, which he had laboured so sedulously to put on an enlightened and efficacious footing. At this, his chosen work, he continued till 1884, when he retired into private life. He leaves an honoured name in Milan, and indeed throughout Italy, for his successful reform in the care and cure of suffering infancy, to the purely medical side of which he made practical contributions recognised as sound and effective far beyond the scene of their initiation.

Medical News.

UNIVERSITY OF DUBLIN.—The following degrees have been conferred:—

BACHELOR IN OBSTETRICS.—Samuel W. Allworthy, Edward Barrington Fennell, Henry Noble Holton Joynt, A. G. Price, Joseph David Wright.

BACHELOR IN SURGERY.—S. W. Allworthy, E. Barrington Fennell, J. Evans Hadden, Wensley Moore Jennings, H. Noble Holton Joynt, John Freeman Knott, A. G. Price, J. David Wright.

BACHELOR IN MEDICINE.—H. Noble Holton Joynt, A. G. Price, Joseph David Wright.

DOCTOR IN MEDICINE.—R. J. Baker (*in Colonis*), H. Theodore Bewley (*stip. cond.*), Clemens Mallins (*in Colonis*), John Patrick Henry, E. Hogben (*stip. cond.*).

NAVAL MEDICAL SERVICE.—The following gentlemen, who competed at the examination recently held at Burlington House for appointment as Surgeon in the Royal Navy, have been granted commissions:—

	Marks.		Marks.
Acheson, J. H.	3130	Collingwood, F. W.	3020
McElwee, J.	3130	Levinge, R. T. A....	3020
Fraser, P. W.	3100	Ferguson, J. C. ...	3010
Harvey, D. A.	3045	Monnlyan, B. P....	2990

A GIFT TO BARNSLEY.—MRS. Lambert, of London, has offered to erect and present to the town an infectious diseases hospital, at a cost of about £4000, the corporation to select a suitable site.

SIR JAMES PAGET has consented to give the annual address to the students of the London Society for the Extension of University Teaching, at the Mansion House, under the presidency of the Lord Mayor. The address will be on "Scientific Study."

THE Small-pox Hospital at Sheffield, erected at Lodge Moor, has just been opened for patients.

THE annual collections in the various places of worship in Leeds on behalf of the local medical charities were made on the 19th inst.

ROYAL MEDICAL BENEVOLENT COLLEGE.—The annual dinner will be held at the Hôtel Métropole on April 17th. The Lord Mayor has consented to preside, and will be supported by the sheriffs of London and Middlesex.

VACCINATION GRANTS.—The following gentlemen have received the Government grant for successful vaccination in their respective districts:—Dr. F. W. Lewis, Llandovery Union (third time); Mr. G. W. Dalston, East Ward Union (second time); and Mr. T. Garrett Horder, Cardiff Union.

ST. ALBANS HOSPITAL. — At the recent annual meeting of the governors of this institution it was reported that the new hospital was almost ready for occupation, and steps for the sale of the old premises were authorised.

ST. JOHN AMBULANCE ASSOCIATION.—At a distribution of certificates by Lady Barrington at the Eton Mission last week Dr. John W. Sanders, F.R.C.S., was presented by the members with a handsome cabinet "as a mark of esteem for services gratuitously rendered in connexion with the four classes held during the past year."

BEQUESTS.—The trustees of the late Miss Jane Anne Paterson have just paid the following legacies left by her to the respective institutions under-mentioned:—The Glasgow Royal Infirmary, £1000; the Western Infirmary, £1000; Association for Relief of Incurables, £200; and the Maternity Hospital, £50.

CENTENARIANS.—A movement is on foot in Larkhall to present a testimonial to Michael Smith, who is said to have reached the patriarchal age of 111 years.—Miss Ann Ayliff of Moulton, near Spalding, died on the 16th inst. in the 100th year of her age.—Mr. Timothy Donovan of Raheen, Castletownshend, co. Cork, died last week at the advanced age of 107 years.

HOSPITAL ACCOMMODATION IN THE NORTH BIERLEY UNION.—A letter was read from the Local Government Board at the meeting of the Cleckheaton Local Board, on the 12th inst., requesting that measures be adopted without delay, in conjunction with other townships, for the erection of a joint hospital. The Cleckheaton Board had already decided to join, with North Bierley Township and Hunsworth, in the formation of a joint hospital district.

NORTHUMBERLAND COUNTY LUNATIC ASYLUM.—The erection of the extensive additions to the County Asylum at Morpeth are now practically completed. The new wards on both sides, for men and women respectively, have for some time been occupied, and the spacious dining-hall was brought into full use last week. These improvements will afford changes of position and surroundings which will appreciably contribute to the mental and physical healthfulness of the patients.

SANITARY ASSURANCE ASSOCIATION. — The seventh annual report, issued on the 12th inst., deals with the proceedings in connexion with the Sanitary Registration Bill. The income for the past year was £444 10s., leaving a balance in hand after payment of all liabilities. The report was adopted with expressions of satisfaction at the continued prosperity of the Association. It has been resolved to request Lord Chelmsford to take charge of the Sanitary Registration Bill in Parliament this session, and to introduce it into the House of Lords at as early a date as possible.

THE SMART PRIZE.—Mr. F. G. Smart, M.A., M.B., of Gonville and Caius College, Cambridge, and his wife have transferred the sum of £2400 Great Eastern Railway 4 per cent. debenture stock to the Master and Fellows of Gonville and Caius College, for the purpose of establishing a prize and studentship in Botany, to be called the "Frank Smart" prize and the "Frank Smart" studentship. The prize is to be of the value of £6, and is to be awarded annually in books to an undergraduate of Gonville and Caius College who is most distinguished in the study of botany at the annual College examination.

PRIZE FOR ESSAY ON GONORRHŒA.—The Royal Academy of Medicine and Surgery of Barcelona announces that the Gari Prize, which is worth about £60, will be awarded next year. The subject for the essay will be the Pathogenesis of Gonorrhœa: clinical forms of the affection, with special reference to prolonged cases and cases of repetition; concomitant and consequent affections; prophylactic and curative treatment. Specimens (*piezas*) illustrating it are to be sent with the essay. The essays are not to be signed, but must contain a motto in the usual way. They may be written in Spanish, French, or Italian, and must be sent in to the Academy (Baños Nuevos, No. 9, Barcelona) before June 30th, 1889.

THE LIVERPOOL DISPENSARIES.—The annual report submitted to the meeting of governors, held on Tuesday last, shows there has been a considerable increase in the total number of patients under treatment during the past year—namely, 28,630, or a net increase of 3566. The subscriptions during the year amounted to £1347; donations £139; legacies, £100; and Hospital Sunday apportionment, £612. These sums, as compared with the preceding year, exhibit a total decrease of £1369. From the financial statement it appears that the year's income was £4862 8*s.* 1*d.*, of which £962 0*s.* 6*d.* had been received in pence from the patients, an increase of £72 on the amount of last year. The debit balance was £586 16*s.* 7*d.*, an increase on the previous year of £64 3*s.*

ANOTHER FOOTBALL CASUALTY.—On Sunday last a young man named Payne, whilst playing football at Kingstown, county Dublin, came into collision with another player, and received such injuries that he died the following day in St. Michael's Hospital.

THE SOUTHPORT INFIRMARY. — The seventeenth annual report, just issued, states that the number of in-patients during the past year had been 334; of these 100 were accidents. The out-patients numbered 2341, of which 690 were emergency cases. The total receipts during the year on the general account were £1734 12*s.* 1*d.*, and the disbursements amounted to £1771 17*s.* 2*d.*, showing a debit balance of £37 5*s.* 1*d.* Generous legacies and donations had been received and placed to the credit of the investment fund. A resolution was adopted prohibiting any candidate for the appointment of house surgeon from canvassing for votes for that position.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY OF LONDON.—The following is a list of officers and other members of council nominated for election at the annual meeting, to be held on the 1st prox.:—President: Sir Edward Henry Sieveking. Vice-presidents: Sir Andrew Clark, Bart., Sir Henry Thompson, Dr. J. Andrew, and Mr. Thomas Smith. Treasurers: Dr. C. J. Hare and Mr. J. Ashton Bostock. Secretaries: Dr. W. Butler Cheadle and Mr. J. Warrington Haward. Librarians: Dr. S. Jones Gee, and Mr. J. W. Hulke. Other Members of Council: Sir Joseph Fayrer; Drs. W. Cayley, T. Lauder Brunton, R. Douglas Powell, and A. E. Sansom; Messrs. R. W. Parker, W. J. Walsham, H. T. Butlin, H. Morris, and E. Tegart.

THE BRITISH MEDICAL TEMPERANCE ASSOCIATION. A meeting of this Association was held on Tuesday, the 21st inst., in the Medical Society's rooms, Chandos-street. A paper was read by Dr. Alfred Carpenter, J.P., on Difficulties of Diagnosis between Disease Symptoms and Drug Symptoms. He pointed out by typical cases the possibility of being misled by symptoms due to the previous administration of drugs, specially of alcohol. An account was then given by Dr. Norman Kerr of 115 completed cases which have been treated at the Dalrymple Home for Inebriates during the last four years and a half. This statement is given in another column.

PRESENTATIONS.—At the half-yearly dinner on the 16th inst., at the Holborn Restaurant, of the Brussels Medical Graduates' Association, Dr. Henry Lewis of Folkestone, president, in the chair, a handsome illuminated address, with a gold repeating watch, and massive silver centre-piece and soup tureen, were presented to Dr. F. Ernest Pocock who has been honorary secretary of the Association for nearly ten years. The presentation was made conjointly by Dr. Lewis, the president, and Dr. J. Beresford Ryley, the founder of the Association, both of whom spoke in the warmest and most cordial manner of the indefatigable energy and acumen shown by Dr. Pocock in carrying out the work of the Association, and of his successful efforts to get the Brussels degree placed upon the Medical Register. Dr. Pocock suitably responded, and thanked the Association for their kind recognition of his services. Among the speakers were Dr. Danford Thomas, Dr. Wm. Gayton, Dr. Nix, Dr. Barraclough, and Dr. Orwin.——On Nov. 4th, at the Town-hall, Palmerston, Northern Territory of South Australia, Percy Moore Wood, L.R.C.P.Lond., M.R.C.S., Government medical officer, formerly house surgeon and house physician to Guy's Hospital, was presented with a purse of 270 sovereigns on the occasion of his leaving for England on sick leave. The Government Resident, in presenting the purse, regretted the cause of Mr. Wood's leaving, and expressed in feeling terms on behalf of the subscribers their high appreciation of the unselfish and devoted services rendered by Mr. Wood in his multifarious duties, while frequently himself undergoing physical suffering.

THE SEAMEN'S HOSPITAL.—Lord Charles Beresford, M.P., presided on the 22nd inst. at the annual court of governors of this institution. The report showed that the hospital had extended its operations to Gravesend, and that during the last year 2382 patients had been treated in the wards at Greenwich, in addition to the treatment of out-patients. There was a lessened income owing to the falling-in of annuities, and the committee appealed for help to make up this lessened income in face of increased expenses. The report was unanimously adopted, and the meeting terminated with the re-election of officers and thanks for their services during the past twelve months.

EXAMINATION OF CANDIDATES FOR HER MAJESTY'S INDIAN AND NAVAL MEDICAL SERVICES.

ANATOMY AND PHYSIOLOGY.—SIR JOSEPH FAYRER.

Monday, Feb. 13th, 1888, from 10 a.m. to 1 p.m.

1. Describe the formation of the cervical portion of the vertebral column, note the characters of the vertebræ, especially of those which are peculiar, and the mode in which they are connected with each other. Describe also the development of a vertebra. 2. Describe the origin, course, and distribution of the ulnar nerve, noting its communications with other nerves in relation especially to the innervation of the hand. 3. Give a description of the dissection by which you would expose the deep perineal fascia, the prostate gland, and neck of the bladder. Give an account of the parts met with in the dissection. 4. Describe the structure, anatomical relations, and functions of the spleen. 5. Describe the glandular structure by which saliva is formed. Give an account also of the chemical composition and physiological uses of the secretion.

MEDICINE.—SIR WILLIAM AITKEN.

Tuesday, Feb. 14th, 1888, from 10 a.m. to 1 p.m.

1. Discuss and explain, from an anatomical and physiological point of view, the phenomena and causation of the paroxysmal suffocative dyspnœa which may occur in cases of thoracic aneurysm, and as bearing on the question of relief by tracheotomy. Say also what may otherwise be done for relief of the dyspnœa, giving reasons for the treatment you suggest. 2. Describe the symptoms and morbid anatomy (macroscopic and microscopic) in cases of multiple sclerosis of the spinal cord. 3. Describe a case of typhus fever during the first ten days, with special reference to the gastric, cutaneous, and nervous phenomena. 4. What meaning do you attach to "compensation" as regards the condition of the heart in cases of disease of its valves? and say how you determine whether or not compensation is sufficient or complete. 5. Describe the anatomical varieties of fibroid tumours of the uterus, the symptoms to which they give rise, and the possible influence they may exert on conception, pregnancy, and parturition. 6. Define (1) "galvanisation"; (2) "faradisation"; and indicate the uses to which they are, or may respectively be, put in the treatment of disease.

SURGERY.—MR. POLLOCK.

Monday, Feb. 13th, 1888, from 2 to 5 p.m.

1. A patient has caries of the lower dorsal or upper lumbar vertebræ, with much suppuration. Describe the symptoms which would indicate the commencement of caries; and, as suppuration continues, in what respect may the symptoms vary, and in what positions may the pus present itself? Describe the treatment to be adopted in the earlier, as also in the later, stages of such a case. 2. What treatment should be adopted in case of suspended animation from immersion in the water? What subsequent symptoms may arise in such a case after respiration has been completely restored, and what should be the treatment? 3. What are the conditions of urine to which attention should be directed before recourse is had to any surgical operation, except such as is immediately imperative? Relate any instance in which the condition of the secretion, rather than the operation, may have been the cause of death after such operation. 4. Describe the various causes, local and constitutional, which may give rise to inflammation of veins, the evils which such inflammation may effect, and the treatment of these various conditions. 5. Describe the injury known as dislocation of the foot, inwards or outwards from the tibia, the complications which usually attend this injury, and the treatment to be adopted. 6. In what conditions of system does the form of eruption known as rupia usually commence? Describe it in its first and subsequent stages, and the treatment to be pursued locally and generally.

CHEMISTRY.—DR. ALLMAN.

Tuesday, Feb. 14th, 1888, from 2 p.m. to 4 p.m.

1. Write down in the form of an equation the chemical changes which take place in the preparation of carbonic acid by the action of hydrochloric acid on marble. 2. By what test may the presence of sulphuric acid be detected? 3. Give the formulæ which express the chemical composition of each of the following substances:—Sulphuretted hydrogen, carbonate of soda, Epsom salts, nitre.

NATURAL SCIENCE.—DR. ALLMAN.

Tuesday, Feb. 14th, 1888, from 4 p.m. to 6 p.m.

ZOOLOGY.

1. Mention one or more instances in which the two germinal layers of the embryo—ectoderm and endoderm—continue to be recognisable through life as persistent structures. 2. On what erroneously interpreted phenomenon did Ehrenberg base his doctrine of the polygastric structure of the infusoria? 3. Refer to its proper class and order an animal with the following characters, and give one or more examples:—Respiration exclusively pulmonary, heart with two ventricles incompletely separated, a single occipital condyle, body with a dorsal and ventral bony shield, jaws destitute of teeth.

BOTANY.

4. Whence do plants obtain the carbon of their tissues? 5. What are interpetiolar stipules? Cite from the Pharmacopœia a natural order of plants characterised by the possession of interpetiolar stipules. 6. Refer to its natural order a plant with the following characters:—Corolla monopetalous, regular 5-lobed, ovary superior, 1-celled with a free central placenta. Fruit capsular with numerous albuminous seeds. Stamens 5 inserted on the tube of the corolla, each opposite one of its lobes. Plant herbaceous. Adduce one or more examples of this order.

PHYSICS.

7. Enumerate the colours in the solar spectrum in the order of the refrangibility of the rays, beginning with that in which the rays have the highest index of refraction. 8. What are the conditions under which water may be cooled below 0° Centigrade without freezing? 9. What is the numerical coefficient of the expansion of gases?

MEDICAL NOTES IN PARLIAMENT.

Sanitary Condition of Dublin Barracks.

IN the House of Lords on the 20th inst., Earl Beauchamp, in moving that the return of all cases of febrile disease in the Dublin garrison since January, 1881, ordered to be printed on Sept. 9th, 1887, be continued to Dec. 31st, 1887, spoke of the grave danger to which troops quartered in Dublin were exposed by reason of the insalubrity of the barracks there.—Lord Herschel hoped that Her Majesty's Government would take seriously in hand the improvement of the barracks at Dublin, especially the Royal Barracks.—Lord Harris assured the House that the Government were anxious to carry out as rapidly as possible the recommendations of the experts who had inquired into the state of the Royal barracks.—Lord Spencer during his last Vice-royalty heard many complaints from officers as to the state of the Dublin Barracks generally, and the Royal Barracks in particular.—The Duke of Cambridge, who for some years was quartered in the Royal Barracks, did not in his time there hear the complaints now made. He had no doubt that enteric fever had increased in those barracks, but it had also increased everywhere else. At the same time, everything should be done to improve the condition of all barracks in which the sanitary arrangements were imperfect.—Lord Kimberley was of opinion that not only as a matter of justice to the troops, but also on grounds of economy, the Government ought to lose no time in improving the barracks in Dublin.—The motion was agreed to.

The Water Supply of the Country.

In the House of Commons, in reply to Sir H. Roscoe, Mr. W. H. Smith said that his attention had been called to the letters which have appeared in *The Times* on the question of the water supply of this country. The question was a serious one, but it would be impossible for any steps to be taken now which would affect the water supply of the ensuing summer. Looking to the fact that large sums of money had in late years been borrowed by local authorities for the purpose of providing water, the Government did not think that a Royal Commission such as was suggested by the hon. member would be advisable.

Measles in the Island of Lewis.

Dr. Cameron asked the Lord-Advocate whether he could state the number of cases of, and of deaths from, measles which took place in the last three months of 1887 in each of the parishes in the Island of Lewis; and whether in any of these parishes any steps were taken to relieve the sick, or, beyond the closing of schools, to check the spread of the disease; and, if so, what steps.—The Lord-Advocate stated that his information was that in Stornoway burgh there were a large number of cases and four deaths; Stornoway parish, many cases and eighteen deaths; Barvas parish, nearly 300 cases and one death; Lochs parish, 300 cases and sixteen deaths; Uig, two cases and no deaths. The disease had been on the whole of a mild type, and in all these places medical attendance was given and the sick supplied with medicine and such necessaries as were ordered by the medical men. Isolation wherever practicable was insisted upon.

Police and Sanitary Regulations.

On the 22nd inst., on the motion of Mr. Stuart Wortley, it was resolved: "That the Committee of Selection do appoint a Committee, not exceeding nine members, to whom shall be referred all private Bills promoted by municipal and other local authorities, by which it is proposed to create powers relating to police and sanitary regulations which deviate from, or are in extension of, or are repugnant to the general law; that Standing Order 173a be applicable to all Bills referred to the said Committee; that the Committee have power to send for persons, papers, and records; that five be the quorum of the Committee."

Appointments.

Successful applicants for Vacancies, Secretaries of Public Institutions, and others possessing information suitable for this column are invited to forward it to THE LANCET Office, directed to the Sub-Editor, not later than 9 o'clock on the Thursday morning of each week for publication in the next number.

ASHWELL, HERBERT GEORGE, L.R.C.P.Ed., M.R.C.S., has been appointed Medical Officer to the Workhouse and Schools of the Nottingham Union.

BIRD, JOSEPH, F.F.P.S.Glas., has been appointed Medical Officer for the B District of the Thrapston Union.

CALVERT, JAMES, B.A., B.Sc., M.D.Lond., M.R.C.P., M.R.C.S., has been appointed Assistant Physician to the Royal Hospital for Diseases of the Chest, City-road, E.C.

ELLISON, ERNEST H., M.A.Cantab., L.R.C.P.Lond., M.R.C.S., has been appointed Medical Officer for the Castleton District of the Chapel-en-le-Frith Union.

HARDWICK, FREDERICK S., M.D., C.M. Aberd., has been appointed Medical Officer for the Second District of the West Ashford Union.

JOHNSTONE, Mr. WILLIAM, has been appointed Analyst for the Borough of Dunstable.

JONES, FRANCIS W. B., M.B., C.M.Ed., has been appointed Medical Officer for the Monmouth District of the Monmouth Union.

RUSSELL, WILLIAM, M.D., F.R.C.P. Ed., has been appointed Pathologist to the Edinburgh Royal Infirmary, vice Woodhead, resigned.

SHAW-MACKENZIE, JOHN ALEXANDER, M.R.C.S., L.S.A., has been appointed Honorary Medical Officer to the Home for Children, Marylebone-road, W.

THOMAS, W. EDMUND, L.R.C.P.Ed., L.R.C.S.Ed., has been appointed by the Home Office Certifying Surgeon (under the Factory Act) for the Bridgend (South Wales) District, vice Leahy, deceased.

Vacancies.

In compliance with the desire of numerous subscribers, it has been decided to resume the publication under this head of brief particulars of the various Vacancies which are announced in our advertising columns. For further information regarding each vacancy reference should be made to the advertisement.

BRISTOL DISPENSARY.—Surgeon.

BROMPTON CANCER HOSPITAL, S.W.—Registrar. Salary £50 per annum, with board and residence.

CENTRAL LONDON OPHTHALMIC HOSPITAL, Gray's-inn-road, W.C.—Assistant Surgeon.

CITY OF ST. ALBANS.—Medical Officer of Health and Analyst. Salary for the office of Medical Officer £50 per annum, and £15 for that of Analyst.

COTON-HILL LUNATIC HOSPITAL, Stafford.—Assistant Medical Officer. Salary £100 per annum, with board and furnished apartments in the hospital.

DEWSBURY AND DISTRICT GENERAL INFIRMARY. — House-Surgeon. Salary £80 per annum, with board and residence.

LEICESTER INFIRMARY AND FEVER HOUSE.—Assistant House-Surgeon. Salary £50 per annum, with board, apartments, and washing.

METROPOLITAN HOSPITAL, Kingsland-road, E.—Junior House-Surgeon. Salary £40 per annum, with board and residence.

UNIVERSITY OF GLASGOW. — Examiners in Anatomy, Midwifery, Medical Jurisprudence and Medicine, and Clinical Medicine. The annual fee for the examinerships with reference to Anatomy and to Medicine and Clinical Medicine is £40 each, and for those with reference to Midwifery and Medical Jurisprudence, £30 each.

Births, Marriages, and Deaths.

BIRTHS.

DAVIDSON.—On the 28th ult., at Bon Accord-square, Aberdeen, the wife of Jas. Mackenzie Davidson, M.B., C.M., of a daughter.

DUNBAR.—On the 16th inst., the wife of J. J. MacWhirter Dunbar, M.D., of a daughter.

HARE.—On the 14th inst., at Weston-park, Crouch-end, N., the wife of Evan H. Hare, M.A., F.R.C.S., of a son.

LANGDON.—On the 5th inst., at Winckley-square, Preston, Lancashire, the wife of John Winkley Langdon, M.R.C.S., of a daughter.

PRESTON.—On the 17th inst., at Canterbury, the wife of H. O. Preston, M.R.C.S.Eng., prematurely, of twins, son and daughter; the latter survived her birth a few hours only.

WADE.—On the 16th inst., at Horrington, Wells, Somerset, the wife of A. Law Wade, M.D., of a son.

WALKER.—On the 14th inst., at Hurworth-upon-Tees, near Darlington, the wife of Chas. E. Walker, M.B., M.R.C.S., of a daughter.

WILES.—On the 18th inst., at Belmont, Bowes-park, N. (prematurely), the wife of Fredk. Wm. Wiles, M.R.C.S., L.S.A., of a son.

MARRIAGE.

HYNE—WATT.—On the 13th inst., at the Parish Church of St. Helier, Jersey, Frederick Alexander Hyne, M.R.C.S., to Mary Ann Alison, widow of Edmund Watt, Esq., and daughter of Alexander Wilson Moir, Esq., C.M.G.

DEATHS.

MACBEAN.—On the 11th inst., at his residence, New-street, Hanley, Staffordshire, Alexander MacBean, M.R.C.S., L.S.A., in his 78th year.

PHILLIPS.—On the 20th inst., at Burlington House, Bromley, Kent, Robert Edward Phillips, M.D., aged 39.

N.B.—A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.

Medical Diary for the ensuing Week.

Monday, February 27.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M., and each day at the same hour.
ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. and each day at the same hour.
CHELSEA HOSPITAL FOR WOMEN.—Operations, 2.30 P.M; Thursday, 2.30.
ST. MARK'S HOSPITAL.—Operations, 2 P.M.; Tuesday, 2.30 P.M.
HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.
METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.
ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.
CENTRAL LONDON OPHTHALMIC HOSPITALS.—Operations, 2 P.M., and each day in the week at the same hour.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. H. Hylton Jessop: The Physiological and Pathological Conditions of the Pupil and Accommodation.
SOCIETY OF ARTS.—8 P.M. Mr. John Mayall, jun.: The Modern Microscope. (Cantor Lecture.)
MEDICAL SOCIETY OF LONDON.—8.30 P.M. Dr. Ormerod: Two cases of Friedreich's Ataxia.—Mr. Marmaduke Sheild: (1) Ununited Fracture of Arm; (2) Loose Bodies in Knee-joint.—Mr. Black; Case of Syphilis. Cases will also be shown by Mr. Stephen Paget, Mr. Pitts, Dr. Samuel West, and others.

Tuesday, February 28.

GUY'S HOSPITAL.—Operations, 1.30 P.M. and on Friday at the same hour. Ophthalmic Operations on Monday at 1.30 and Thursday at 2 P.M.
ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.
CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.
WESTMINSTER HOSPITAL.—Operations, 2 P.M.
WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Consultations, Monday, 2.30 P.M. Skin Department, Monday and Thursday, 9.30 A.M.
ROYAL INSTITUTION.—3 P.M. Mr. G. J. Romanes: Before and after Darwin.
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Inspector-General Lawson: Epidemiological Aspects of Yellow Fever. (Milroy Lecture.)
ANTHROPOLOGICAL INSTITUTE OF GREAT BRITAIN AND IRELAND.—8.30 P.M. Mr. Basil Hall Chamberlain: Notes on the Japanese "Go-hei," or paper offerings to the Shinto gods.—Mr. Henry Balfour: Exhibition of Decorated Arrows from the Solomon Islands.—Mr. A. W. Howitt: Further Notes on the Australian Class Systems.

Wednesday, February 29.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.
MIDDLESEX HOSPITAL.—Operations, 1 P.M.
ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour. Ophthalmic Operations, Tuesday and Thursday, 1.30 P.M. Surgical Consultations, Thursday, 1.30 P.M.
ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M.; Saturday, same hour.
LONDON HOSPITAL.—Operations, 2 P.M.; Thursday & Saturday, same hour.
GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.
SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.
UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department, 1.45 P.M.; Saturday, 9.15 A.M.
ROYAL FREE HOSPITAL.—Operations, 2 P.M., and on Saturday.
KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.; Friday, 2 P.M.; Saturday, 1 P.M.
CHILDREN'S HOSPITAL, GREAT ORMOND-ST.—Operations, 9 A.M.; Saturday, same hour.
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. H. Hylton Jessop: The Physiological and Pathological Conditions of the Pupil and Accommodation.

Thursday, March 1.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M. Ophthalmic Operations, Friday, 1.30 P.M.
CHARING-CROSS HOSPITAL.—Operations, 2 P.M.
NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.
ROYAL INSTITUTION.—3 P.M. Prof. C. Hubert H. Parry: Early Secular Choral Music (with Illustrations).
ROYAL COLLEGE OF PHYSICIANS OF LONDON.—5 P.M. Inspector-General Lawson: Epidemiological Aspects of Cholera. (Milroy Lecture.)
THE PARKES MUSEUM OF HYGIENE.—5 P.M. Dr. G. Sims Woodhead: Milk and Disease.
HARVEIAN SOCIETY OF LONDON.—8.30 P.M. Mr. Mansell-Moullin: The Surgical Treatment of Empyema.—Dr. Spicer: On the Functions of the Uvula and Epiglottis.

Friday, March 2.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M
ROYAL COLLEGE OF SURGEONS OF ENGLAND.—4 P.M. Prof. W. H. Hylton Jessop: The Physiological and Pathological Conditions of the Pupil and Accommodation.
WEST LONDON MEDICO-CHIRURGICAL SOCIETY.—8 P.M. Mr. Percy Dunn: Pathological Specimens.—Mr. Roche Lynch: A Specimen of Cancer of the Bodies of the Vertebræ.—Dr. Eccles: A Demonstration of Massage.—Mr Lunn: On a successful case of Oöphorectomy.—Dr. Inglis Parsons: The Treatment by Electrolysis of Fibroids of the Uterus.
ROYAL INSTITUTION.—9 P.M. Mr. C. Meymott Tidy: Poisons and Poisoning.

Saturday, March 3.

MIDDLESEX HOSPITAL.—Operations, 2 P.M.
ROYAL INSTITUTION.—3 P.M. Lord Rayleigh: Experimental Optics.

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET Office, February 23rd, 1888.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radia in Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Feb. 17	30·02	N.E.	33	23	...	37	31	...	Overcast
,, 18	29·95	N.E.	35	33	...	42	33	...	Snowing
,, 19	29·39	N.E.	32	...	...	37	29	...	Snowing
,, 20	29·64	N.E.	32	...	...	39	30	·16	Overcast
,, 21	29·76	N.E.	35	33	...	38	31	...	Cloudy
,, 22	29·84	N.E.	31	...	...	33	29	...	Overcast
,, 23	29·99	E.	29	...	...	31	26	...	Snowing

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editors."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for insertion or for private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked and addressed to the Sub-Editor.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "to the Publisher."*

We cannot undertake to return MSS. not used.

"GOING INTO PRACTICE."

THERE are many considerations which should make a young man pause who contemplates entering the medical profession. Not the least of these is the difficulty of making an honourable and successful start. This difficulty has been touched off with much humour, and not a little truth, by a recent writer in the *St. James's Gazette*, who professes to give the experiences of a beginner in search of an opening who, after many ineffectual efforts, rushes to a death vacancy, and marries, after a short interval, the widow. We commend the paper to our young readers, not as a caution against widows so much as a caution against those who make a business of selling practices which sometimes involves the sale of the purchaser.

Sanitas.—The best plan is to use an earth closet with a movable receptacle.

Dr. Lavers.—If possible, next week.

CURIOUS JAPANESE CUSTOM.

To the Editors of THE LANCET.

SIRS,—A few days ago, whilst walking with some friends near here, we saw a peculiar and, from a medical point of view, also interesting sight. Seated in front of a house in one of the villages was a Japanese woman suckling a cat. The woman was very much amused at our evident astonishment, and informed us that her child was dead. She was sitting in full view of the whole street; so that there was no cause for concealment in her mind. I have been told since by foreign residents that this is not an uncommon mode among the villagers in the interior of relieving the mammary gland of its secretion under the above circumstances.

I am, Sirs, your faithfully,

Yokohama, Jan. 17th, 1888. CHAS. W. LOW, M.B.

M. N. O.—Parkes' Hygiene, Ganot's Physics, Baldwin-Latham's Sanitary Engineering, and the Public Health Acts.

Alpha.—Yes.

THE LATE DR. MUSHET'S POEM "THE WORKHOUSE."

To the Editors of THE LANCET.

SIRS,—Can any of your readers inform me where I can procure the poem entitled "The Workhouse," mentioned in the obituary notice of the above medical gentleman in your last issue?

I am, Sirs, yours truly,

Feb. 20th, 1888. WORKHOUSE.

THE MORNING "TUB."

THE ablution of the whole body with which English gentlemen begin the day was some fifty years ago a very occasional, not to say rare, proceeding. The practice, indeed, originated with the wider diffusion of sanitary knowledge among the educated classes. The popular treatises on Physiology and the Laws of Health by the late Dr. Andrew Combe did much to arouse interest in the care of the body, the aim of that enlightened physician and admirable writer being, in the language of one of his school, to make each individual "the intelligent custodian of his own health." Elderly gentlemen, survivals from the days "when George the Fourth was king," have been heard to declare that it was Combe's vivid exposition of the function of the skin—of its value as a great waste-pipe—that first made them take to the morning tub. Formerly bathing, especially sea-bathing, introduced into general practice about the middle of last century by Dr. Russell, was resorted to for its tonic or bracing effects; but the virtues of the bath for abstersion pure and simple, for relieving the skin of the effete matters thrown out by the pores, were not publicly recognised before Combe's day. Now the practice has come to be so characteristic of Englishmen that on the Continent hotels are known to be frequented by them by the simple test of there being baths in the establishment.

Charity.—We have no personal knowledge of the case. No doubt the Secretary of the British Medical Benevolent Fund would supply information.

J. C.—Yes, in an early number.

PROVIDENT DISPENSARIES.

To the Editors of THE LANCET.

SIRS,—The leading article in your issue of Feb. 11th on the above subject is very much to the point, and deserves the gratitude of all practitioners. May I be permitted to supplement it by the following figures taken from the annual report (1886) of the Provident Dispensary of the United York Friendly Societies?

There were 9724 members, consisting of men, women, and children who subscribed £1488 2*s.* 1½*d.*, or an average of three shillings and a half penny per head per annum. There were three medical officers, who received out of this the sum of £595, the large remainder (£891) being expended in the secretary's and dispenser's salaries, drugs, rent, and the carrying forward of a handsome balance. For this £595 three officers paid the huge number of 19,622 visits and were consulted 28,039 times at the dispensary, or each saw a daily average of forty-three and a half patients, at the magnificent remuneration of a fraction over 2¼*d.* per visit or consultation.

Such figures as these are very dispiriting, as showing the scant remuneration accorded by a large portion of the public for medical services; yet little can be done to remedy it, for it is obviously a question of supply and demand, and whilst the profession continues so terribly overcrowded, there must of necessity be many men, and good men too, who will thankfully accept such remuneration rather than do nothing and starve. But while admitting the necessity of accepting small fees, under which so many of us labour, yet nothing but the severest censure should be passed upon those members of the profession who seek to attract those small fees to themselves by means of advertising and other miserable methods, which not only incur disgrace upon themselves, but tend to degrade the entire profession in the public esteem.

I am, Sirs, yours obediently,

Feb. 13th, 1888. A STRUGGLING PRACTITIONER.

ONE MEDICAL MAN APPLYING FOR ANOTHER'S APPOINTMENTS.

To the Editors of THE LANCET.

SIRS,—I shall be glad if you will allow me to call the attention of the profession to what I consider most unprofessional conduct shown towards me by one in our profession.

I have held a club appointment for nearly six years, the appointment being held subject to a three months' notice on either side, and I am re-elected at every annual meeting of the club. At the last annual meeting a letter was read from a medical man, applying for the post of medical officer to this club. I may say that this gentleman had not been officially asked to appiy for the post, neither had any complaints been laid against me by the officers or members of the club. I was led to understand when I took the appointment that so long as I discharged my duty honourably the re-election would be a mere matter of form, to comply with the club rules.

I should like to know if the conclusions arrived at as to this gentleman's conduct are correct. Perhaps I may be wrong. If so, I should be glad to be put right.—I am, Sirs, yours truly, —— ——.

*** We insert this letter without name or address, both of which, of course, are in our possession. We wish to avoid personalities; but it is important that such statements be made and such conduct discussed. We cannot construct any excuse for a medical man who applies unsolicited for the post of a medical neighbour in the absence of any complaint. Even amongst superior tradesmen one would find a higher sense of what is neighbourly and dignified.—ED. L.

THE CONTAGIOUS DISEASES ACTS IN INDIA.

G. P.—The benefits resulting from the operation of the Acts, as well as the evils attending their withdrawal, are set forth very strikingly in the Journal of the Health Society of Calcutta, to which we must refer our correspondent.

Omega.—There is no special treatise on the subject.

"ROUGH-AND-READY MEDICAMENTS."

To the Editors of THE LANCET.

SIRS,—I subjoin, in continuation of my former letters on this mode of treatment, three more illustrations of it; and having now nearly exhausted my stock of these illustrations, I will "wait a wee," and see what other specimens further reading or research may bring me.

1. Describing the measures that were resorted to by the attendants of a certain sirdar (chief) who had the misfortune to break his leg at Herat, General Ferrier says ("Caravan Journeys and Wanderings," p. 450): "The surgeons there put on a plaster made of barley flour and yelk of eggs, to facilitate the joining of the bone. ..... A dispute then arose as to the general treatment [of the patient], and as to how he should be dieted. One was for complete abstinence from food, another for abstinence from liquids; one was for hot drinks, another for cold; and as they could not agree, it was determined to try the *tesbih*—a chaplet with which Mussulmans consult fate. ..... It was at length settled that the patient was to have no drink at all, but as much as ever he could eat." He, however, declined everything that was brought him. But the result does not transpire; and it is at least strange that this kind of *stichomany*, or divination—a process that was resorted to in circumstances of doubt or danger by such different persons as Richelieu and Louis XV., Charles Stuart and John Wesley—should be here also consulted with so much confidence.[1]

2. "Their [the Afghan surgeons'] operations for the reduction of dislocations are," says Dr. Bellew ("Journal of a Political Mission to Afghanistan in 1857," p. 338), "most original, and, if report speak at all truly, equally successful. For a dislocation of the thigh the unfortunate patient is sweated and starved for three days in a dark room, the atmosphere of which is heated by fires kept burning night and day, and the effects produced by this high temperature are increased by drenching the patient with copious draughts of warm rice-water or thin gruel. During the interval that the treatment is enforced on the patient a fat bullock or buffalo is tied up, and fed *ad libitum* with chopped straw flavoured with salt, but is rigidly denied a drop of water. On the third day the patient is made to ride the bullock or buffalo astride, a felt alone intervening between himself and the animal's hide. His feet are next drawn down, and fastened tightly under the animal's belly by cords passing round the ankles. All these preliminaries arranged, the animal is then led out to water, and drinks so greedily and inordinately that its belly swells to near double its size. The traction produced by this on the dislocated limb is sufficient to bring the wandering bone back to its socket."

3. Dwelling on the primitive, but withal practical, medicinal expedients that are resorted to by our frontier hakims, Mr. Thorburn says, in his "Banner," p. 353, that "one Zabita Khan performed on a mutilated woman—cutting off their errant wives' noses is, it may be here observed, the common punishment that jealous husbands inflict in India—a very neat operation, having supplied what was wanted from her cheeks, instead of forehead. Two quills did for the time as nostrils." It is, I think, now generally admitted that the "cover" for such casualties should be rather sought in the immediate neighbourhood of the lesion itself than in the remoter quarter, whence the ingenious Taliacotius procured his.

Apropos of the treatment of ovarian dropsy, I may perhaps be allowed to reproduce here, as briefly as I can, the particulars of a case of this kind that was brought to my notice several years ago by a gentleman at Queenstown. They were to the effect that as an elderly lady—the wife of a local practitioner—was getting out of a carriage she felt something give way inside of her. She immediately afterwards passed three gallons of colourless fluid in the recumbent position, and in that only; but whether this took place on the spot I am now unable to say, and she was relieved for the time of her previous burthen. She fell some time subsequently, and after, as I assume, this fluid had reaccumulated, and sustained a similar mishap or release, and she had, I think, no other experience of either kind afterwards. The same gentleman assured me, at this same interview, that he knew of a case in which a splenic abscess was discharged with impunity through the ureter; and if any of your readers care to turn to the pages of the *Indian Medical Gazette* for December, 1880, they will find an instance (narrated by myself) in which the linguistic mistake of a comrade led, by the simple process of evoking a hearty laugh from his friend (who was suffering at the time from a large hepatic abscess), to a rupture of this abscess and the discharge of its contents into the bowel—the best mode of escape that can be contrived in such a contingency.—I am, Sirs, your obedient servant,

Auriol-road, W., Jan. 21st, 1888. W. CURRAN.

[1] I might, I believe, add to the names given here as believers in this kind of divination those of Marie de Medicis, of her namesake the famous Queen of Scots, as well as those of Leo X., and Martin Luther. The famous preacher, Whitefield, and all the leading Covenanters, consulted the Bible—*sortes Biblicæ*,—as Scott testifies in respect of the latter, from time to time or as occasion required; and the story of Effie Deans is so well known that I need not recur to it for any proof in point here.

EPSOM COLLEGE.

To the Editors of THE LANCET.

SIRS,—Once again may I ask your permission to answer three letters that you have recently admitted to your columns on the subject of Epsom College.

1. "A Medical Practitioner" cannot have read the names of those who at the present time form the Council. If he had done so, he would hardly have made the suggestion to "elect two general practitioners," seeing that nearly half the members are general practitioners.

2. "A Subscriber" wishes to start a new class college upon a cheaper system. I should like to warn him that for some time past the fees paid at Epsom have not covered the expense of the sons of medical men; and before entering on an untried scheme I would ask him to consider carefully the history of schools like Wellington College and Marlborough, and to learn from their experience that success cannot be attained without the abandonment of the class principle.

3. "M.B." objects to the inquiries that are made before boys are allowed to compete for our exhibitions. The Council, in their desire to secure the benefits of such assistance to the most deserving candidates, find it necessary to ask that a confidential statement shall be laid before a small committee of their own body which will enable them to decide who shall be admitted to the examination. Once admitted, exhibitioners and foundationers are in every respect on the same footing as the other boys.

So far in answer to our critics. May I be allowed to add here that the object of the Council is, and ever will be, to provide in Epsom College a first-class public school, conducted in the same way as Haileybury, Charterhouse, and others, and at the cheapest possible cost, securing always distinct and appreciable advantages to the medical profession. We are convinced that for boys who are intended for that profession no school in England possesses similar advantages. Special training is provided for the London Matriculation and Preliminary Scientific Examinations, and, owing to the generosity of the London hospitals, there are seven scholarships, ranging in value from 90 to 125 guineas each, offered annually to leaving boys. For the encouragement of classes there are several very valuable prizes in money and books, and one exhibition every year of £50, tenable for three years at the Universities. A munificent benefaction lately received from Dr. Haviland and his brother (F. G. Haviland, Esq.) has provided two exhibitions of £60 a year for four years. One of these exhibitions will be awarded in alternate years for proficiency in natural science, the holder declaring his intention to graduate in medicine at the University of Cambridge. The late Dr. Harvey Owen has bequeathed the sum of £1630 to found an exhibition for foundation scholars or the orphans of medical men, to be held at one of the Universities. Six scholarships of smaller value held in the school are offered annually, and the Council award several valuable exhibitions, which are restricted to sons of medical men under certain conditions, as above mentioned. For these advantages pupils have to pay:—1. In the master's house, 75 guineas a year. 2. In College: (*a*) Sons of medical men (under fourteen), £49 10*s.* a year; sons of medical men (over fourteen), £52 10*s.* (*b*) If not sons of medical men, £70. An entrance fee is required of each boy in the master's house of £3 3*s.*, in College of £2 2*s.*, and after his first year each boy contributes 7*s.* a term to the Exhibition Fund. These charges include ordinary subjects of education, board, lodging, and washing. Extra subjects, which are entirely optional, are:—Instrumental music, £1 11*s.* 6*d.* a term; chemistry, 10*s.* 6*d.* a term; carpenter's shop, 8*s.* a term; private tuition on any subject, £3 a term. Above all, the Council are most anxious that the College should not be regarded as a class school; and with this object in view they propose to offer annually entrance scholarships, open to all comers, ranging in value from £20 to £40 a year, and the co-operation of your readers is earnestly invited in making these facts known as widely as possible.

If I am not trespassing too much on your space, may I conclude with a little kindly press censorship on admitting to your columns anonymous letters reiterating a charge that, I hoped, I had effectually disproved. *The College fees have not been raised.* To any critic who will sign his name I will promise, for myself and for my colleagues, the most careful consideration; but I must not be accused of want of courtesy if I do not reply further to anonymous correspondents. I have said more than enough to show that the motto of the Council has been to "level up," and the gratifying fact that each term is steadily adding to the numbers being educated in the College abundantly testifies to the wisdom of this policy. I am, Sirs, yours very faithfully,

C. HOLMAN, M.D.,
Reigate, Feb. 20th, 1888. Treasurer of Epsom College.

Perplexed.—The first duty in such a painful case is to place the facts beyond all doubt. If necessary a second opinion should be taken. After the question of diagnosis is settled, the duty of the practitioner becomes a matter of great delicacy. On several grounds the husband is entitled to know the facts. The way in which he should be informed is a matter for consideration. It is to be remembered, too, that the disease may have been acquired accidentally, or in a way implying no misbehaviour. It might be well in the first instance for the practitioner to state his views candidly to the patient, so as to give her every opportunity of correcting them or informing him. Throughout, it is the duty of a medical man to deal with such facts in the way most considerate to all parties affected. We shall be glad to hear the sequel of the case.

"ON THE CONTRACTIONS OF THE UTERUS DURING THE WHOLE OF PREGNANCY."

To the Editors of THE LANCET.

SIRS,—Having read Dr. Braxton Hicks' interesting papers on the above new sign of pregnancy, allow me to say that I have on more than one occasion observed this peculiar phenomenon, but never before has it been so forcibly "driven home" to my mind. A few months ago I was requested to examine two unmarried girls, who were found to be about four or five months pregnant, and where, to be positive in my diagnosis, the abdomen was manipulated for some time. During this period I distinctly remember that the womb in both cases alternately relaxed and contracted; but I did not attach much importance to it, as I attributed the occurrence to reflex action produced by the pressure of the hand over the impregnated uterus, or (if you like) a resentment on the part of that organ to any foreign interference. I would like to ask whether the distinguished author regards the occurrence of "false pains," which so frequently appear during the latter weeks of pregnancy, as due to the same cause—viz., exaggerated contractions minus expulsive force.

I am, Sirs, yours obediently,

J. HARRIS JONES, L.R.C.P.E., &c.

Wilkes Barre, Pennsylvania, Feb. 4th, 1888.

Mr. Herbert Davison.—We are not acquainted with an institution under the name mentioned.

Dr. Blake (Great Yarmouth).—The paper is under consideration.

A. D. F.—We have not analysed the preparation.

HYDROCYANATE OF MERCURY AND SALOL IN THE TREATMENT OF WHOOPING-COUGH.

To the Editors of THE LANCET.

SIRS,—Readers of THE LANCET, and especially those engaged in the treatment of children's diseases, may possibly take an interest in the following note.

In my private practice I convinced myself that hydrocyanate of mercury administered to children internally in cases of whooping-cough in the early stage produced a good effect on the course of this disease, diminishing the attacks and weakening their violence. I employed it in the following proportions:—℞ Hydrocyanate of mercury, 0·05; distilled water, 100·0; glycerine, 20·0. Mix. A teaspoonful to be taken every hour until a third part of the mixture be used, and afterwards a teaspoonful every two hours. In order to prevent diarrhœa, I ordered as a diet milk with limewater. In one case I have also seen good effects follow the insufflation of salol by the nose.—Believe me, Sirs, yours truly,

Warsaw, Poland, Feb. 10th, 1888. JOSEPH DRZEWIECKI.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Lauder Brunton, London; Dr. Halstead, London; Mr. Larke; Dr. Braxton Hicks, London; Mr. Eyles, New Hampton; Mr. Warner, Liverpool; Mr. G. Lawson, London; Mr. H. Marsh, London; Mr. T. Thomson; Mr. Ross, Belfast; Mr. Sparling, Chester; Mr. Antill; Messrs. Arnold and Son, London; Mr. J. B. Sutton, London; Messrs. Newbery and Sons, London; Dr. Alexander; Dr. Crichton; Messrs. Ewart and Co., London; Dr. Rentoul, Liverpool; Dr. Mackey; Dr. Sedgwick Saunders, London; Mr. Gilroy, Ecclefechan; Mr. J. H. Jones, Wilkes Barré; Mr. C. Lawes, London; Dr. Ormsby, Clitheroe; Mr. Lawson Tait, Birmingham; Mr. C. J. Symonds, London; Messrs. Nisbet and Co.; Mr. W. W. Cheyne, London; Dr. Lewers, London; Dr. Norman Kerr, London; Mr. C. Mercier, Catford; Messrs. Faige, Kelly, and Grylls, Redruth; Mr. A. Gresswell, Louth; Mr. Bransom; Mr. Noble Smith, London; Mr. Hawkins, Birmingham; Mr. H. Blake, Great Yarmouth; Mr. Lockwood, London; Mr. Fisher, London; Dr. Forbes Winslow, London; Mr. E. W. Wallis, London; Messrs. Potter and Co.; Dr. R. T. Bowden, Chatham; Mr. Hackett, Gorton; Dr. Campbell Black, London; Dr. Campbell, Garlands; Dr. R. J. Shepherd, London; Dr. J. Oliver, London; Mr. Stonham, London; Mr. J. H. Potter, Cullompton; Mr. Ainsworth, London; Dr. Hare, Edinburgh; Dr. G. Steel, Manchester; Mr. Beaumont, Bath; Dr. Holman; Dr. Burford, London; Dr. Weaver, Southport; Dr. Orwin, London; Mr. Gedge, Manchester; Mr. F. R. Humphreys, London; Dr. Gray, Dalton-in-Furness; Mr. J. Moir, London; Mr. Reckie, London; Dr. R. Liveing, London; Mr. Price, Bangor; Dr. Kirk, Partick; Dr. Waters, Liverpool; Dr. Monaghan, Accrington; Mr. Norton, Oxford; Mr. Maw, Bradford; Messrs. Pocock, Vauxhall; Mr. Blake, Dublin; Mrs. Henry Wood; Dr. Daniels, Peterefield; Mr. Churton, Leeds; Mr. Jotcham, Wantage; Messrs. Guillaume, Bournemouth; Mr. Lund; Dr. Larke, Cirencester; Mr. McNab, Stirling; Dr. Fornoni, Milan; Dr. Comber, Heckfield; Dr. Fresk; Mr. Gromgolbe, St. Helens; Dr. Allwright, Maidenhead; Dr. Webb; Mr. Stock, Bristol; Mr. Treslse, Burton-on-Trent; Mr. Stillwell; Mr. Abbs; Mr. Fuge, Taunton; Mr. Kershaw, Manchester; Stockport Infirmary; W.; Buckinghamshire Infirmary; Alpha; Santas; Viresco; Charity; The Director-General of the Army Medical Department; A. D. F.; Workhouse; Amateur; Zeta; Only a Graduate; G. R. S.; Jain; Doctor; The Sanitas Company; An Old Practitioner.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Webb, London; Mr. Morse, London; Mr. Blatchley; Messrs. Loeflund and Co., London; Dr. Parker, Lismore, N.S.W.; Messrs. Burgoyne and Co., London; Mr. Hamilton, Galway; Dr. Wyles; Messrs. Edis and Cooper, Huntingdon; Messrs. Smith, Manchester; Messrs. Ingram and Royle, Coventry; Dr. Mason, Terrute, N.S.W.; Messrs. Bell and Bradfute, Edinburgh; Dr. Bower, Bedford; Dr. Nickoll, Hawthorne (Victoria); Mr. Clarke, London; Miss Hunt, Dublin; Messrs. Merlin and Co., London; Mr. Greenwood, Manchester; Messrs. Rocke and Co., London; Messrs. Wilkinson; Mr. Howes; Messrs. Cassell and Co., London; Mr. Gibson, Worcester; Mr. Bagshore; Messrs. Wyley and Co., Coventry; Mr. Corbett, Kidderminster; Dr. Belle, Tunbridge Wells; Mr. Botwood, Ipswich; Mr. Ernst, London; Messrs. Farwig and Co., London; Mr. Aitken, Bedford; Mr. T. Smith; Messrs. Baiss Bros., London; Capt. Pead, Dulwich; Dr. Crasweller, Highbury; Mr. W. E. Thomas, Bridgend; Mrs. Craig, Leicester; Mr. Heywood, Manchester; Dr. Stewart, Lymington; S. T. S.; C. W. D.; Vekis; Junius, London; Centuary, London; Surgeon, Minchinhampton; The Treasurer, General Medical Council, London; M. T.; Chester Diocesan Institution; Alpha, Cardiff; Scope; B., Newcastle; J. T. D.; South Coast; B. W.; Medicus, Sheffield; Statim, Bristol; Adnah; M. J., Bedford; Zona; Sligo; Delta, Bristol; Curator; W. S.; M.B.; M.D., London; Sanitas; Medicus, Bury; Hydvo, Bath; S. M. R.; Veritas, Manchester; C. H., Cowes.

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